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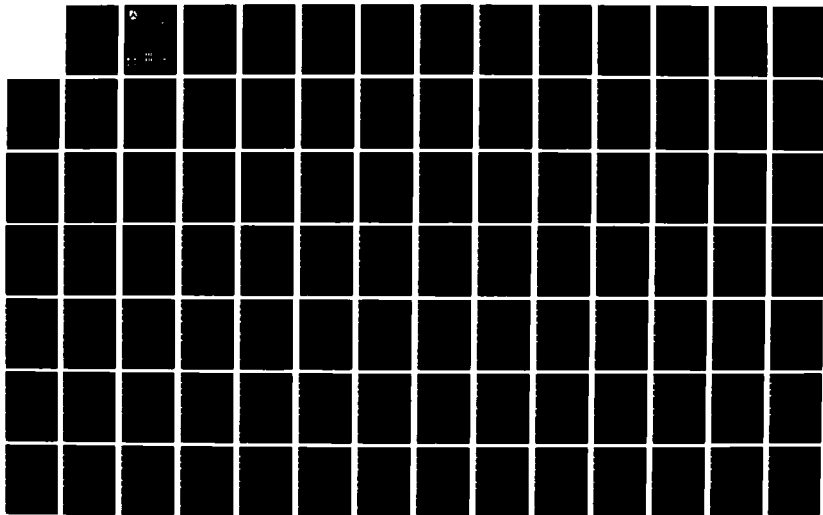
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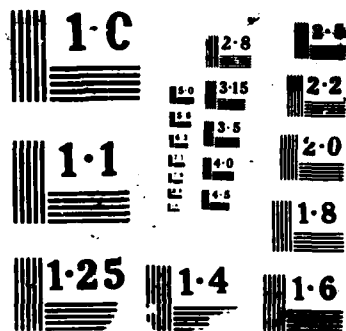
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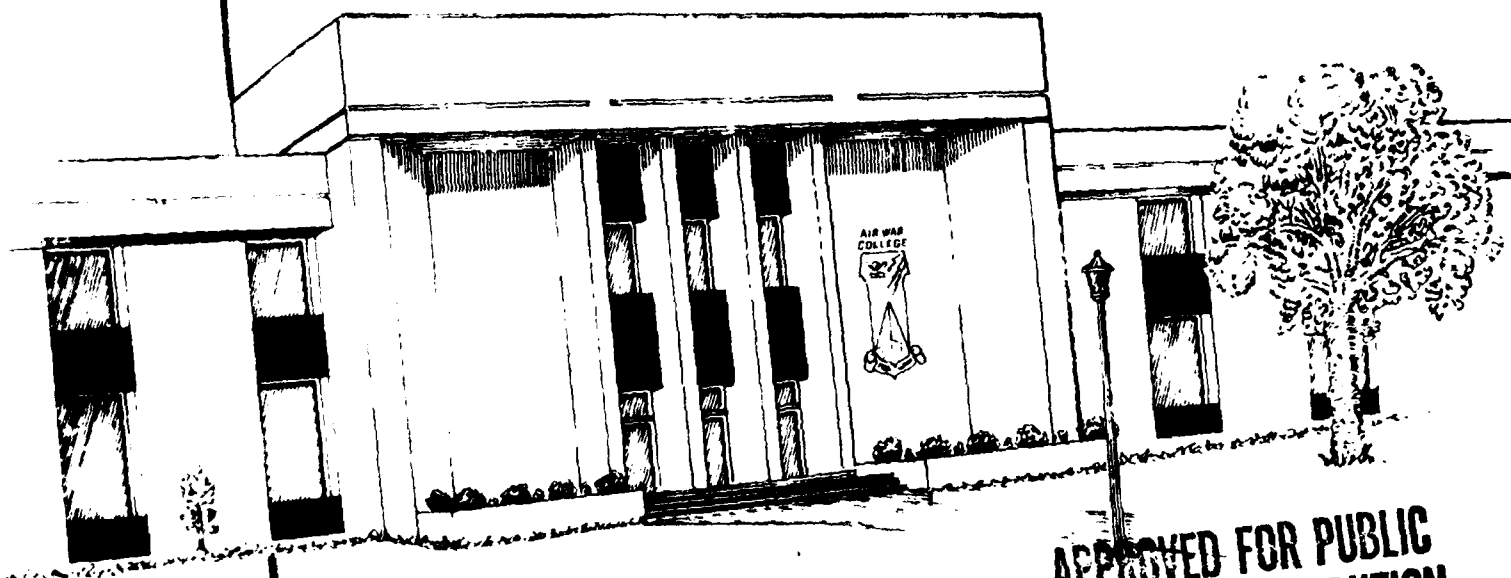
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MOTIVATION MODELING: INFLUENCING
SUBORDINATE MOTIVATION AND ORGANIZATIONAL
EFFECTIVENESS

By LIEUTENANT COLONEL RONALD T. SCONYERS



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MOTIVATION MODELING:
Influencing Subordinate Motivation and
Organizational Effectiveness

by
Ronald T. Sconyers
Lt Col, USAF

A MONOGRAPH SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE RESEARCH
REQUIREMENT

Thesis Advisor: Dr. Bart Michelson

MAXWELL AIR FORCE BASE, ALABAMA

May 1987



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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: Motivation Modeling: Influencing Subordinate
Motivation and Organizational Effectiveness

AUTHOR: Ronald T. Sconyers, Lieutenant Colonel, USAF

Most "motivation" research explores *what motivates people*, e.g., how incentive and job enrichment affect employee motivation to work. This monograph assesses instead the correlation between a leader's and subordinate's positive or negative attitude toward their role as leader and manager. It evaluates certain variables that affect the leader/follower relationship and the productivity of the organization.

This research tested the following hypotheses in existing Air Force organizations: (a) a leader's level of motivation correlates directly with the immediate subordinate supervisors' level of motivation; (b) this correlation and organizational productivity are greater among more competent, confident, and supportive leaders; and (c) they are also greater when subordinates are intrinsically rather than extrinsically motivated and in organizations that are more democratic than autocratic.

The research draws numerous conclusions from its findings and offers implications for additional research.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Ronald T. Sconyers, (MA, St. Louis University and Ph.D (ABD), Denver University) has spent the majority of his career in the Air Force recruiting business. In jobs including squadron operations officer, management consultant, squadron commander, and command chief of training, he has always been intently interested in motivation and its effects on individual performance and organizational effectiveness. Before his assignment to USAF Recruiting Service, he was a public affairs officer with the Aerospace Rescue and Recovery Service and Headquarters Military Airlift Command from 1970-1974. He is a graduate of the Air Force Institute of Technology Education With Industry program, Squadron Officer School (residence) and Armed Forces Staff College (residence). He holds the Meritorious Service Medal with four oak leaf clusters. Colonel Sconyers is a graduate of the Air War College, class of 1987.

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CHAPTER I

INTRODUCTION

The relationship between organizational leadership, motivation, and organizational effectiveness is a complex and interdisciplinary question founded in a variety of theories. There are various schools of thought that have given rise to today's understanding of these concepts. Many are extrapolations of well-documented psychological theories of behavior.

Most of the research has been devoted to the various *motivating* processes generated by leaders and managers, resulting in theories of **what motivates people**. Generally, researchers point to the traditional concepts of incentive, job enrichment, needs and desires, etc. Such theories provide important suggestions for methods to inspire increased productivity and satisfaction in workers.

But little research has delved into the degree to which the **leader is motivated** to ensure the organization performs the task as well as possible. Noticeably missing from the literature is the effect of the leader's level of motivation on the subordinate and organizational effectiveness. Do individuals respond differentially to the motivation of the leader? What factors affect performance?

For example, given a charismatic, enthusiastic, self-motivated, highly-charged leader, will that level of motivation impact positively the level of motivation of subordinate supervisors? Are there certain subordinates that such motivation affects negatively? What is the result of a negatively motivated leader, one who is pessimistic, cynical, or less inclined to express open enthusiasm for his or her work?

The assumption is made (and validated in the literature) that motivation is essential to the productivity of individuals. But does the motivation of one individual influence the motivation of another? Is it contagious?

In preparing a list of rules for leaders to help them improve unit performance, John Blades points out that the influence of the leader's level of motivation should be both direct and indirect because frequently the level has an impact on other factors which themselves cause performance to increase or decrease. His untested premise is that a highly motivated leader is more effective because the mere presence of his or her motivation enforces high standards, enhances the members' motivation, and improves cohesion.¹

This study will determine the relationship between the motivation of the leader, the motivation of the immediate subordinate and the resultant impact on productivity. It is proposed that the degree and intensity of leader motivation will affect in some way the degree and intensity of subordinate motivation and performance.

This is not an attempt to look at what motivates the leader or subordinate, but rather how the level of leader motivation correlates with member motivation.

The questions at hand are: Are the effects of the leader's motivation infectious? What is the connection between a leader's sense of self-worth and how is it perceived by the subordinates? How does leadership style correlate with subordinate motivation and productivity? What characteristics affect subordinate motivation? What variables best predict level of performance?

A major contributing theory offering evidence in support of this research is that of imitative, or modeling, behavior. In this theory, an individual is said to "imitate" a model when the individual observes certain behaviors in the model and subsequently adjusts their behavior in a similar fashion to that of the model.

Research indicates that in organizations, such a "socialization" process results in a very specific set of behaviors and beliefs.² Early research proposed that necessary to this process is the juncture of a "reinforcing stimulus after and contingent upon the occurrence of a certain response."³

Such reinforcements could be rewards, or positively reinforcing stimuli which increase the likelihood of further similar behavior; or punishment, i.e., negatively reinforcing stimuli decreasing the probability of occurrence. The pioneer study of such behavior was conducted by Miller and Dollard⁴ who emphasized a direct reinforcement process. Bandura⁵ expanded this "social learning" process and experimented in detail with both the *acquiring* and *performing* of imitative behavior.

Underpinning his theory is a concept known as "vicarious reinforcement," or the role of observation of a reward given to a *model* following a specific behavior displayed by the *model*. Bandura argues that behavior is partly a function of an individual's expectation of that behavior leading to reward. If an individual can attribute certain characteristics and certain observed behaviors to past rewards for the *model*, the individual's expectation that like behavior will lead to eventual reward will cause the observer to imitate the *model*.⁶ According to Bandura, direct reinforcement, then, is not a requisite for modeling behavior.

Certain characteristics heavily influence this modeling process. Several researchers have scientifically investigated how the learning of social behaviors is affected by characteristics of the *model* who originally exhibited them.⁷ The research conducted in this study posits that chief among these is the leadership style of the

leader; the type of organization within which the subordinates interact with the leader; the self-perceived and subordinate-perceived self-confidence, self-esteem and competence of the leader; and whether the subordinate perceives having personal control over reinforcement.

Such theory offers significant implications for understanding the leader-follower relationship developed in the organization, especially in complex and bureaucratic organizations where leaders are frequently "assigned" because of certain technical expertise rather than demonstrated leadership potential. It also aids in determining organization success.

Specific hypotheses are as follows:

(1) A leader's level of motivation correlates directly with the immediate subordinate supervisors' level of motivation.

(2) The correlation between the leader and immediate subordinate supervisors' level of motivation as well as organizational productivity are greater when leaders:

- i. are self-confident
- ii. perceive themselves as personally competent
- iii. have high self-esteem
- iv. emphasize *consideration* more than *initiating structure* leadership behaviors

(3) The correlation between the leader and the immediate subordinate supervisors' level of motivation as well as productivity are greater when subordinates:

- i. perceive the leader as competent
- ii. perceive the leader as self-confident
- iii. perceive the leader as having high self-esteem
- iv. are motivated by intrinsic rather than extrinsic rewards

(4) The correlation between the leader and the immediate subordinate supervisors' level of motivation as well as organizational productivity are significantly more positive in organizations that are more democratic than autocratic.

(5) The productivity of an organization is greater when the correlation between the leader and the immediate supervisors' level of motivation is higher.

Variables

The following is a brief overview of the variables to be studied in this research.

Leader's Personal Qualities (LPQ):

Self-Confidence, Self-Esteem, and Competence

Miller and Dollard discuss certain conditions that facilitate the imitative process. One, the competence of the model, defined in social learning terms as receiving more rewards than punishments, indicates more imitative behavior than would be found in incompetent models. The modeling process is facilitated greater as the competence of the model increases.

Self-confidence is simply a check on the individual's perception of their own level of competence. Without such self-confidence, it has been observed that a leader's use of available skills and powers is directly proportionate to the leader's "lack of doubt" about personal leadership abilities.

Finally, *self-esteem* measures these attitudes toward the self, determining the respect and definitions the individual has for self. It establishes a clear picture of personal strengths and weaknesses, thoughts and ideas, value systems, etc.

While these variables indicate self-appraisal of the leader, such personal characteristics in assessing leader-member relations cannot be reviewed simply in terms of the leader's overt or covert display of those traits. It must also ascertain how the follower interprets those same characteristics. For example, if a leader perceives him or herself as confident, yet the follower perceives the leader as lacking confidence, there is an important disconnect which will affect the follower's likelihood of patterning.

To only analyze the behavior of the leader is a partial approach at best. It sells the follower short--the follower who, in the final analysis, is always the one who accepts or rejects leadership." "At the very least, there is a two-way flow of effects between the leader and follower. The leader's behavior conditions the response of the follower and the follower's behavior condition's the response of the leader."

Therefore, these identical leader traits will be defined as interpreted by the leader's immediate subordinates.

Leadership Style (St)

Most recent leadership research concludes that leadership, to a great extent, is situational, and that what is effective in one situation may be ineffective in another. In an attempt to describe leadership behavior which could be

applied to many different situations, the concepts of "initiating structure" and "consideration" were developed.

"Initiating structure" is the extent to which the leader defines or facilitates organizational interactions toward goal attainment. "Consideration" is the extent to which the leader shows concern for followers' feelings, i.e., a human relations approach.

It is proposed that subordinate's are more likely to model a leader who emphasizes more consideration than initiating structure behaviors because such behavior influences greater affiliation and interpersonal attraction.

Organizational Characteristics (OC)

Organizational characteristics are defined in terms of interpersonal relationships within the organization. Autocratic organizations are characterized as more threatening, greater down-line communication with centralized decision-making and control, and little subordinate influence on goals and methods. Democratic organizations are more trusting, individually supportive, participative, and decentralized.¹⁰

In an organization that is more democratic than autocratic, one might suspect that there is a greater influence of individualism and emphasis on personal growth, self-worth, etc., causing greater independent thinking and an environment more conducive to imitative behavior.

Control of Reinforcement (SLC)

Another variable in this research equation is the subordinate's perceived ability to control the personal environment.

The potential for any behavior to occur in a given situation is a function of the person's expectancy that the given behavior will secure the available reinforcement for that person. In a particular situation, the individual, though desirous of an available goal, may believe that there is no behavior in his repertoire that will allow him to be effective in securing the goal. Within this specific situation the person may be described as anticipating no contingency between any effort on his part and the end results in the situation."

In this variable, the degree to which a person possesses or lacks power over what happens is labelled as either external or internal control. External control suggests a generalized expectancy that reinforcements are extrinsic and beyond personal control. Internal control results when consequent reinforcement is a result of one's own actions.

Therefore, it is proposed that subordinates who perceive responsibility for their own actions and influence their rewards are more likely to imitate the leader.

Motivation (MM)

Motivation is assessed as the willingness to accept certain roles in the attainment of organizational goals. Synthesized from an orientation originally suggested by Miner, people who repeatedly associate positive rather than negative emotion with various role prescriptions are more likely to influence organizational effectiveness.

He asserts that in a typical bureaucratic hierarchy, what is needed for leadership is an authority-accepting, upward-oriented, competitive, assertive, power-wielding, tough-minded person who will attend to detail.¹²

It is from this concept of role-motivation that it is proposed that leaders with positive motivation toward their role will create contagious and similar positive motivation in immediate subordinate supervisors.

Productivity (Prod)

Productivity is defined as organizational output. In this study, it is determined as an interval ranking of the performance of 35 U.S. Air Force Recruiting Service squadrons. It is generally based on achievement of assigned goals in 14 separate programs.

Summary

Mathematically, then, the correlationships are:

$MM_s = MM_L = f(OC, St, LPQ, SLC) = Prod$ where:

MM_s is the subordinate's level of motivation

MM_L is the leader's level of motivation

OC or organizational characteristics, are defined as autocratic or democratic

St is leadership style (ratio of consideration to initiating structure behaviors)

LSA is the leader's self-appraisal of self-confidence, self-esteem, and competence

SAL is the subordinates' perception of the leader's self-confidence, self-esteem and competence

LPQ is the leader's personal qualities as $f(LSA, SAL)$

SLC is the subordinate's locus of control, i.e., internal or external

Prod is productivity, or organizational output

Through various measurement instruments, this research will use both accepted and proposed theory to determine whether these constructs can be verified in existing organizations and examine the relationships among the constructs.

CHAPTER II

BASIC DEFINITIONS AND ORIENTATIONS

Prior to a review of the literature influencing and corroborating this research, some basic terms and the orientation of these terms to this research must be explained. After defining, comparing and contrasting *leadership* and *management*, terms unique to *attitude theory* and *motivation* will be reviewed to set a foundation for the remaining discussion.

Leadership

Leaders evolve in various ways and in various settings. Leadership can be permanent, transitory, shared, absolute, formal, informal, etc. It can be interpersonal, in a small group, or in a large and complex organization. Regardless, the leader cannot be studied meaningfully apart from the leader's environment because leadership is relational. A leader cannot lead alone.

In fact, a leader is probably more dependent upon the subordinate than the subordinate on the leader.

The higher one is the more people he or she needs to hold them up. Leader's successes are based on the performance of those they lead. When the followers are motivated to work together to achieve the membership's goals, the leaders become successful.'

Another important premise must be the context in which the term *leader* is defined. For example, a leader can emerge and develop because of charisma, personality, and motivation, or by the desires of the group. If defined organizationally, the leader can be appointed and does not necessarily have to earn the right of leadership.

Alex Bavelas distinguishes between "leadership as a personal quality" and the idea of "leadership as an organizational quality," where the first concept explores individual abilities and the second integrates organizational power and authority.²

Charles Holloman also makes a distinction. Even more than a position or personal quality, leadership is a characteristic of the functioning of a group or organization resulting from the interaction of leader, group and situation. *Organizational* leaders have two-directional responsibility: to a higher authority and to the group. It is from the higher authority that the leader is formally vested. On the other hand, a *natural leader* influences followers to willingly cooperate toward the achievement of group goals. It is a voluntary acceptance of the leader by the group, usually because of some skill or knowledge that the natural leader possesses that is helpful to the group.³

For the purposes of this study, the term *leadership* connotes primarily the organizational definition. However, the personal quality offers a supporting role and will be so addressed, allowing consideration in all leadership

environments, i.e., interpersonal, small group, or organizational. Additionally, while this research is directed more at the formal, appointed leader, it also allows for the informal, personal form. Suggestions for further consideration outside the organizational setting will be discussed in the final chapter.

With these distinctions of dependency and context, various definitions of leadership can now be reviewed. Gouldner said that a leader is an "individual whose behavior stimulates patterning of the behavior in some group. By emitting certain stimuli, he facilitates group action toward a goal."⁴ Thus, a group leader is not necessarily the individual who first develops an idea or makes a suggestion. It is rather that individual who is able, by his support of the objective, to legitimate it. The leader transforms the objective into something group members feel compelled to attain.

A second perspective is "interpersonal influence exercised through the process of communication toward the attainment of a specified goal."⁵ The type of leader or leadership required depends upon the situation. Two specific leadership functions are necessary for goal achievement. *Task functions* must be executed in selecting and carrying out the defined goal. *Maintenance functions* are required to strengthen and maintain group viability.

A third concept calls leadership "the observed effort of one member to change other members' behavior by

altering the motivations of the other members or by changing their habits."6 Motivation alters the expectations of reward or punishment. If the leadership is successful, what is observed is a change in the subordinate.

George Beal comments that a leader is "an individual in any social situation in which his ideas and actions influence the thoughts and behavior of others."7 There is no limit to the number of leaders that can function within a group or organization. In fact, the more the better, because the very act of leadership develops initiative, creativity, and mature responsibility.

One leader may have the most substantive influence, i.e., the most ideas adopted as to how to solve environmental problems, or the *task leader*. Another may influence coordinating the activities of the members into a cooperating whole and is the *procedural leader*. Another having the most influence helping members handle emotions is maintaining group cohesion--the *socioemotional leader*.

Thus, leadership is situational and shifts from person to person depending upon the task at hand. Every member is a leader whenever they contribute a needed idea at a particular time. Leadership is passed as individuals offer something needed in the process of achieving goals.

Finally, Zaleznik and Moment see leadership as an "interaction in which the conscious intentions of one person are communicated in his behavior, verbal or otherwise, with the consequence that the other person wants to and does

behave in accordance with the first person's intentions."⁶ Leadership is a total role performance involving the person's behavior and internal conditions and the internal and behavioral responses of the others.

Generally, then, leadership is an interpersonal interaction by one or more individuals to influence the behavior or thoughts of others. This influence is directed and facilitated to accomplish a specific objective.

For nearly every published theory of leadership, there is a distinct definition and discussion of leadership as a construct. There is also frequent discussion in the literature about the difference between leadership and management. To some researchers, management and leadership are significantly different, while to others it is only a matter of degree, if at all.

Hersey and Blanchard differentiate the two by saying *management* is working with and through individuals and groups to accomplish organizational goals. *Leadership* is simply a broader concept of management.

Management is thought of as a special kind of leadership in which the accomplishment of organizational goals is paramount. The key difference between the two concepts, therefore, lies in the word *organization*. While leadership also involves working with and through people to accomplish goals, these goals are not necessarily organizational goals.⁷

They define three areas of skill necessary for carrying out the process of management: technical, human and conceptual. But regardless of the amount of technical and conceptual expertise needed at the various levels of management, "the common denominator that appears to be crucial at all levels is human skills,"¹⁰ which is the crux of the "leadership rather than management" debate. Other theorists offer a similar orientation.

Abraham Zaleznik says that whether a manager is directing energies toward goals, resources, organization structures, or people, *the manager is ultimately a problem solver. Leadership, on the other hand, is a practical effort to direct individual and group activity.* Therefore, leaders and managers differ in motivation and in how they think and act. Managers tend to adopt impersonal and passive attitudes toward goals out of necessity rather than personal desire. Conversely, leaders are active not reactive, shaping instead of responding to ideas. Leaders adopt a personal and active attitude toward goals.¹¹

Leaders and managers also differ in their concepts of work. Managers see work as an "enabling process involving some combination of people and ideas interacting to establish strategies and make decisions."¹² Through a variety of skills, managers use a number of tactics such as

negotiation, coercion, and reward. They act to limit work choices. Leaders seek out new approaches and new options. A leader projects ideas to energize people and then develops choices that give the projected goals meaning.

He says managers work with people, but maintain a low level of emotional involvement. In contrast, leaders attract strong feelings of identity.

Mintzberg defines "ten working roles" of managers, only one of which is *leader*. However, he freely admits this may be the crucial role, for it is this role that defines the manager's interpersonal relationships.

He must bring together their needs and those of the organization to create a milieu in which they will work effectively. The manager motivates his subordinates (and) probes into their activities to keep them alert....The societal shift toward greater organizational democracy will cause managers to spend more time in the leader role.¹³

And finally, according to Schriesheim, Tolliver and Behling,¹⁴ *management* includes those processes which prompt other people to perform specific functions for organizational goal achievement. *Leadership* focuses on the interpersonal interactions with the purpose of increasing organizational effectiveness. Leadership, then, is a social influence process in which the leader seeks voluntary participation of followers to attain organizational goals.

There is not always an interchangeable distinction between management and leadership. For the purpose of this study, where a distinction is necessary, it will be as

suggested by Field Marshall Sir William Slim. "Managers are necessary; leaders are essential....Leadership is of the spirit, compounded of personality....Management is of the mind, more a matter of accurate calculation, statistics, methods, time tables, and routine."¹⁵

As interpreted by Richard Lester, "leadership is an affective concept; management is a cognitive notion."¹⁶ Leadership is interpersonal; management is organizational. Leadership is social influence; management is organizational influence. Leadership is an open process; management is closed. Leadership is goal achieving; management is goal setting. Leadership is animate; management is inanimate.

However, such differentiation is not always evident, or necessary. Most likely, an individual's role as a leader and role as a manager will vascillate back and forth depending upon the situation. In this research, in it's simplest distinction, when intrapersonal attitudes and interpersonal consideration of the attitudes of others are activated, a manager then becomes a leader. When required to perform certain administrative-type tasks, the leader is performing a managerial role.

Before closing this section on leadership, one important assumption must be made. A contributing theory to leadership study (and discussed in detail later) is the trait approach. Based upon the idea that leaders surface because of certain attributes or characteristics, it

provides several values. Most importantly, it forces into sharp focus the fact that personality is an ever-present and significant influence on how, and with what success, the individual functions as a leader.¹⁷

Trait theorists might suggest that the leader's inner personality causes behavior which, in turn, affects others, eliciting from them either cooperative or resistant reactions. Unfortunately, attempts to develop a precise formula for a causal relationship between the leader's personality and the behavior of others has met with little scientific proof.

It will be seen, however, after reviewing the literature, there is indeed an influential relationship between a leader's personality and success. What the various theories seem to offer is that within certain limits imposed by the inner personality of the individual, each person has the capability of cultivating attitudes resulting in behavior which optimizes effects on people.

Since it has been previously stated that leadership is relational and for the purposes of this research primarily organizational, it is important to understand the concept of supportive leader behavior.

In its simplest terms, leadership is a process of influencing human behavior. In an organizational context, other concepts mediate the leadership process.

Chester Barnard suggested that organizations exist only by human cooperation through which individual capabilities can be combined to achieve goals. Important to his premise is the need for an informal structure within the formal organization, where through informal associations, cooperative purpose and facilitative interaction arise.

Basic to his discription of organizations, Barnard recognized that individual contributions to the organization must be invoked (or motivated) through either *incentive* or *persuasion*. Through *incentive*, individuals are induced to participate through material rewards, prestige, benefits, etc. When the organization itself cannot provide the necessary incentives, coercion, propaganda, and motivational appeals are used to *persuade*.¹⁰ The distribution of these incentives and/or persuasions is facilitated by interpersonal relations.

The establishment of these relationships, peer to peer or superior to subordinate, can have great impact on the productivity of that organization. Negative relationships can result in conflict while positive relationships can result in organizational growth. "Ideally, the climate and environment of the organization should be such as to enhance relationships which mutually benefit individuals and the organization."¹¹

Organizations are generally more productive if the interpersonal climate is *supportive* (positive) rather than *defensive* (negative). Likert says successful leaders:

...(are) supportive, friendly, and helpful rather than hostile. He is kind but firm, never threatening, genuinely interested in the well-being of subordinates and endeavors to treat people in a sensitive, considerate way....He shows confidence in the integrity, ability, and motivations of subordinates rather than suspicion and distrust....His confidence in subordinates leads him to have high expectations as to their level of performance.²⁰

Such supportive climates are characterized by:

1. *description* (nonjudgmental, asking questions for information, presenting feelings, events, perceptions or processes without calling for or implying change on the receiver);

2. *problem orientation* (defining mutual problems and seeking solutions without inhibiting the receiver's goals, decisions and progress);

3. *spontaneity* (free of deception, unhidden motives, honest and straight-forward);

4. *equality* (mutual trust and respect, participative planning without influence of power, status, appearance, etc.);

5. *empathy* (respecting the worth of the listener, identifying, sharing and accepting his problems, feelings and values);

6. *provisionalism* (willingness to experiment with one's own behavior, attitudes and ideas).²¹

Redding and Likert suggested that such supportive environments are the very essence of organizational effectiveness. "The 'climate' of the organization is more crucial than are communication skills or techniques (taken by themselves) in creating an effective organization."²²

And, "the leadership and other processes of the organization must be such as to ensure a maximum probability that in all interactions, and all relationships with the organization, each member will, in the light of his

background, values and expectations, view the experience as supportive and one which builds and maintains his sense of personal worth and importance."²³

In Chapter III, a more detailed understanding of organizational characteristics will be provided. Suffice it to say for now that clearly, recent research indicates the level of cooperative support instilled by the leader may be a lynchpin in determining organizational effectiveness. Organizations are more likely to have greater effectiveness if there is a leadership environment that encourages and nurtures interpersonal relationships and individual growth. It is from this suggestion that leadership style (St) and organizational characteristics (OC) become critical variables in the modeling process.

Attitude

The central focus of this study, then, must be the effect of the leader's attitude toward a more supportive environment in determining motivational orientation and leadership success. It has been established that attitude determines how and why people accept communication, persuasion, interpersonal influence, and the many factors that define a leader/follower relationship.

No discussion of attitude can be complete without initial consideration of the classic study of attitudes by Gordon Allport. After a review of various definitions, his

research concludes that there is some commonality--*preparation or readiness for response.*"²⁴

Attitude is not behavior but rather a precondition for behavior. It is "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to situations with which it is related."²⁵

The singularly distinctive feature of attitudes is propensity for negative or positive direction. Allport quotes Bogardus' definition as a *tendency to act toward or against some environmental factor which becomes thereby a positive or negative value.* There are varying degrees and intensity of *positiveness* and *negativeness.* How strong is the level of conviction? Through accumulated experience, for example, there is the possibility of both attitude strengthening or attitude change.

A distinction between *attitudes, beliefs, and values* was made by Rokeach. Beliefs are the inferences made about the world organized by importance. Beliefs are not of equal importance to the individual. Those more central in the heirarchy of beliefs, i.e., those more closely held, are more resistant to change. They also have a greater impact on the total belief system.

Values are kinds of beliefs that guide a person in terms of "how one ought or ought not to behave, or about some end state of existence worth or not worth attaining."²⁶

Attitudes, then, are part of the overall belief system. They are a cluster of beliefs organized around an object, person or situation which give positive or negative acceptance of the object. They are not simply random, unpatterned notions, but, in fact, interrelated and interactive concepts.

Attitudes differ from beliefs in that they are evaluative. Beliefs are probability statements of existence; attitudes are statements of evaluation. Attitudes are correlated with beliefs and predispose a person to behave a certain way toward the attitude object. Attitudes are organized in a range from general to specific, with specific attitudes the summation of more general attitudes.²⁷

In this research, attitudes toward the organization, individuals, relationships, and self interreact to define the motivating influence of motivation itself. It is important to understand that attitudes are the means by which people and things are evaluated. It is the measurement of these evaluations that have developed this research.

Motivation

Finally, while attitudes toward those elements that create motivation is the central focus, motivation theory is the essence of this research. It not only helps define

leadership patterns, but also encompasses ways of thinking, acting, feeling, and communicating.

It is assumed to be the leader's responsibility to get an individual to perform effectively. The individual must have the ability to perform the task. But, just as important, they must also have persistent energy directed toward the leader's intended objective, or motivation.

Motivation is a combination of several psychological, physiological, and sociological factors. It is generally expressed in some behavior, which is goal-oriented. That is, behavior is frequently determined by a conscious or unconscious desire to achieve some goal.

People differ not only in their ability to do but also in their 'will to do', or motivation. The motivation of a person depends on the strength of his motives. *Motives* are sometimes defined as needs, wants, drives, or impulses within the individual. Motives are directed toward goals, which may be conscious or subconscious.²⁸

William B. Miller categorized various motivation theories, the most relevant of which will be explained in the next chapter. The first is the *moralists*. "Their theories are based on an optimistic view of Man. People have an inherent desire to achieve, or that people will achieve if they are treated fairly and consulted about their work."²⁹

The second group is the *behaviorists*. "They hold that behavior is completely determined by external stimuli, and that goals are established to achieve pleasure and avoid pain. Individual choice is a meaningless concept."³⁰

The final group of motivation theorists is the *pluralists*. They believe that people differ from one another in fundamental ways. However, "people can be grouped into a relatively small number of classes, and then treated according to the characteristics of the classes in order to produce effective job performance."³¹

Miller then applied each of the various examples to case studies to compare the results. Not all the techniques resulted in positive effects and no validated scientific conclusions were drawn. It was postulated that there is no one general theory of motivation.

However, the concept of goal achievement appears paramount to motivation. A *goal* is an end result. The objective of the leader or manager is to match individual goals with organizational goals. An individual, then, must be "motivated" to achieve those goals. How to translate this motivation into productive subordinate activity toward the achievement of the goal is the task of the leader.

Organizational behavior (OB) is a rising academic as well business management study. At the very foundation of OB study is the concern for employee motivation to work, i.e., how do managers, supervisors, and leaders get

employees to work as they would like them to. Theorists such as Argyris, Herzberg, McGregor and Likert, all of whom will be discussed in detail later, postulated that in most cases, "management frustrates rather than facilitates the display of employee energy toward the accomplishment of organizational goals"³² because such factors as personal growth and satisfaction are secondary to the organization.

Until recently, the majority of motivation studies involved one of three general sets of theory: *reinforcement*, which suggests extrinsic rewards and punishment to change behavior; *need*, which contends that motivation comes from an inner drive to satisfy certain values; and *expectancy*, where individuals seek to maximize valued outcomes based on the reward systems of the organization and the capabilities of the individual.³³

Recently, researchers have linked more closely these various approaches, recognizing, for example, that previous *reinforcement* can, in fact, affect perceptions about future events.

These theories, however, choose to view motivation without regard to the cognitive processes within the individual. Rather, they view motivation as a relationship between behavior and the environment only.

Social learning theory, on the other hand, provides a coupling between the various cognitive and behavioral processes which appear to influence motivation. Although

several theories of motivation influence this research, it is from the cognitive-based social learning theory of behavior modification that this research is developed.

In this chapter, terms relevant to the discussion have been defined. In addition, certain constructs such as leadership, attitude and motivation have been discussed to provide an orientation for the formulation of the theory suggested by this research. The next chapter will review the literature which leads to the conclusions drawn in this study.

CHAPTER III

REVIEW OF THE LITERATURE

This chapter is divided into three major sections: leadership theory, communication theory, and motivation theory. Each of these perspectives describe the foundations of theory which give structure and support to this research.

Leadership Theory

Leadership (and management) theory are the result of an evolutionary process which began gaining momentum in the early 1900s. Since then, there have been a wide variety of definitions and models of leadership, mostly classified by purpose. These include leadership as: a focus of group processes; personality and its effects; the act of inducing compliance; the exercise of influence; an act or behavior; a form of persuasion; a power relation; an instrument of goal achievement; an emerging effect of interaction; a differential role; and the initiation of structure.¹

Early Theory

Frederick W. Taylor's "scientific management" was actually an important early motivation study. However, it

directly applied management concepts in a "real world" situation. This research focused primarily on the technology of the job, i.e., how to determine the best way to select individuals and design jobs to obtain optimal productivity.²

While essentially a "management" study of traditional functions of planning, organizing and controlling, it is important because it developed the concept of getting work done through and with others. However, Taylor's basic view of the worker was as another tool for the leader/manager--workers had to adjust to management, not management to the workers.

The addition of the individual's role in the leadership process led to the "human relations movement". This school of thought originated during the 1930s and 1940s beginning with the studies of Roethlisberger and Mayo.³ Human relations theorists hypothesized that organizations were not solely technological, economic systems as suggested by Taylor, but were social systems in which individuals, groups and intergroup relationships were important.

The Hawthorne studies actually launched the human relations movement. These studies verified that the work environment must provide levels of esteem and self-actualization on the job. Tension, anxiety, and frustration in workers were counterproductive when there was no avenue to seek higher levels of satisfaction. Mayo

pointed out that when workers are "victims" of the environment, i.e., they feel unimportant, confused, and unattached, productivity suffers.⁴

This human relations approach is based on both the psychological and sociological disciplines and focused more directly on the individual and the work group. Viewing an organization as a social system was a major advancement since other researchers tended to neglect consideration of this important organizational perspective.

Among its contributions to contemporary leadership theory was the "organizational" function of the leader. The leader must facilitate cooperative goal achievement and enhance personal growth and development.

Trait Theory

Another approach held that leadership was a function of personality traits. The traits of accepted leaders were analyzed to determine personality characteristics of effective leaders.⁵ These studies provided a great deal of leadership insight.

Stogdill reviewed countless trait studies and provides a factorial classification as follows:

1. Capacity (intelligence, alertness, verbal ability, originality, and judgement)
2. Achievement (scholarship, knowledge, athletic accomplishments)

3. Responsibility (dependability, initiative, persistence, aggressiveness, self-confidence, desire to excel)
4. Participation (activity, sociability, cooperation, adaptability, humor)
5. Status (socioeconomic position, popularity)
6. Situation (mental level, status, skills, needs and interests of followers, objectives to be achieved)⁶

Traits such as persistence in pursuit of goals, venturesomeness, originality in problem solving, drive to exercise initiative in social situations, sense of personal identity, and many others were added later.

It was concluded that a person does not become a leader

by virtue of the possession of some combination of traits, but the pattern of personal characteristics of the leader must bear some relevant relationship to the characteristics, activities, and goals of the followers. Thus, leadership must be conceived in terms of the interaction of variables which are in constant flux and change."⁷

It was also postulated that rather than defining leadership, per se, traits instead differentiate leaders from followers, and effective from ineffective leaders.⁸

Recent trait studies have provided a predictor of leadership effectiveness. (These include, for example, motivation and need for achievement.) "Although the situation largely determines the kinds of specific knowledge necessary for effective leadership, the general pattern of skills, motives and other traits appears to be much the same for most successful administrators in large organizations."⁹

Therefore, trait theory plays a vital role in the assessment of leaders. Although no single trait or combination of traits are universal in assessing the leadership process, they do provide a general understanding of the complexity of leadership and help frame a reference for the further study of the various theories.

Several of these traits will be explored fully in this study. Many traits are used variously in different situations. But certain traits, such as self-confidence, competence, self-esteem, problem-solving, communicative skills, and decision-making ability appear useful in nearly every leadership environment.

Thus far in this literature review, leadership has been characterized as the process of getting work done through people by facilitating cooperative goal achievement while enhancing subordinate development. Whatever leader behavior is exhibited and characteristics possessed, they should be, in some manner, consonant with those of the subordinates.

It is this behavior that underpins this research. How is this behavior defined?

Ohio State Studies

The "Ohio State Studies" gave multi-dimensional descriptions of leader behavior. Halpin and Winer defined

two significant dimensions as *consideration* and *initiating structure*.¹⁰ These studies indicate the influence a leader possesses over the motivation and behavior of followers. (Such dimensions are seen widely throughout the literature, although different terminology may be employed.)

More specifically, the *consideration* aspect of leadership includes leader supportiveness, friendliness, consideration, consultation with subordinates, representation of subordinate interests, openness of communication with subordinates, and recognition of subordinate contributions. Such categories determine the *relationship orientation* of the leader and the subordinate.

The other factor, *initiating structure*, includes direction, clarification of subordinate roles, planning, coordinating, problem solving, and other *task-oriented* behaviors.

Stogdill comments that the real significance of these studies is that *consideration* and *initiating structure* behaviors on the part of the leader seem to produce different effects on the behavior and expectations of followers. These followers, in turn, influence organizational outcomes.¹¹ Such also is the premise of this research. How does the "ratio" of *consideration* to *initiating structure* behavior affect worker behavior?

It is with these studies that the concept of leadership initially suggests the premise of leader-follower relationships. (It might be fruitful to recall the

distinction between leadership and management. *Initiating structure* appears as the management function of leadership while *consideration* is the interpersonal role.)

Life Cycle Theory

Hersey and Blanchard extended the Ohio State Studies via their "Life Cycle Theory of Leadership,"¹² or "Situational Leadership Theory." They define two broad categories called *task* and *relationship behavior*, corresponding similarly to *initiating* and *consideration* behaviors. One important added variable, "maturity," is "the capacity to set high but attainable goals (achievement motivation), willingness to take responsibility, and education and/or experience."¹³

Follower maturity is subdivided into two components: "job maturity" and "psychological maturity". The first is technical expertise rising from learned competence. The second is the development of personal growth and self-confidence. As both leader and follower "mature," different technical and interpersonal relationships develop and different leadership styles must be used. This "maturity" element will be explored as this research examines leader competence and self-confidence.

Life Cycle theory indicates the need for flexible, adaptable leadership behavior depending upon the subordinate and the situation. It also indicates that leaders have a

choice. Rather than simply accepting and adapting to the current situation, the leader can actually change the situation through skill- and confidence-building. One might also postulate that this flexibility may be demonstrated through a change in the leader's motivation.

University of Michigan Studies

Several other studies were similarly oriented to the Ohio State studies, including the "University of Michigan Studies," which focused on productivity-related factors. These factors included the role differentiation of the supervisor, the closeness of supervisors, supervisory interest in employees, and group relationships.¹⁴ Again, as in the Ohio State Studies, it attempted to determine optimal leadership characteristics for group effectiveness. It showed that effective leaders and supervisors were more considerate, supportive and helpful.

Likert advanced these studies by introducing four managerial practices: *supportive behavior*, *group method of supervision*, *high-performance goals*, and *linking pin functions*. *Supportive behavior* is that which develops a sense of esteem and personal worth in the subordinate, e.g., through recognition, appreciation, and consideration. *Group method of supervision* implies that a manager/leader should not supervise individuals but rather groups, seeking group decisions but retaining leader responsibility.

High-performance goals determine standards of quality and performance. And linking pin functions find middle managers the intermediary between the group and upper management. As intermediaries, they must have up-channel influence to obtain necessary support for subordinates. The leader is the point of contact between the leader's sphere of influence and the external environment.

Nothing is more important in the leadership process than facilitating members to feel comfortable and accepted so that each can contribute to the creativity and growth of the organization (supportive behavior). The aim is to help each person communicate more easily and to build a group spirit which allows individualism.¹⁵

Results of studies that stressed the "quality" of the interaction between the leader and other group members is significant. The most effective leader concentrates primarily upon improving organizational function rather than emphasizing technical details (St). More attention is given to creating a productive climate or environment for task accomplishment rather than directly supervising group members (OC). Success depends on the ability to garner subordinate commitment, or motivation, in the achievement of goals, MM_B. It is proposed that high MM_L provides the model for this motivation.

Situational Theories

A predominant (or even dominant) group of theories, generally termed *situational* (or contingency) *theories*, expands this facilitation process and suggests that leadership is a function of situation factors in work groups. As interactional theories, they focus on both personality and situational factors. These theories postulate that no one theory will be effective in all situations.

The situational approach to leadership generally concludes that leadership requirements depend heavily on the context in which leadership acts are to be performed. Leader behavior required rests upon: 1) the kind of task to be accomplished; 2) the group of people involved; 3) the work environment; and 4) the functions which leaders are expected to perform.¹⁶

A previously widely held theory but counter to the situational approach was an example of an attempt to integrate the human relations tradition with the scientific tradition. Blake's and Mouton's "Managerial Grid" was primarily a model depicting a manager's "concern for production" (initiating structure) and "concern for people" (consideration.) It was used to measure a manager's attitudes and to show how to improve managerial ability.¹⁷

They contended that maximum concern for both people and production was the best style. However, Hersey and Blanchard's "Life Cycle Theory of Leadership" argues this point. It proposes that "the best" leadership style varies from situation to situation. The level and amount of supportive (democratic) or directive (autocratic) leadership is a product of 1) the amount of direction the leader provides; 2) the amount of support and encouragement the leader provides; and 3) the amount of follower involvement in decision making.¹⁸

Successful leaders can adapt their style to the situation. Which style to select is dependent on the *development level* of the follower. Development level is the *ability* and willingness of followers to perform without supervision. *Ability* is a function of knowledge or skill which can be gained from education and experience. *Willingness* is a function of confidence and motivation.

Fiedler's Contingency Model¹⁹ postulates that the effectiveness of a group is contingent upon the relationship between the leadership style and the degree to which the group situation enables the leader to exert influence. Fiedler views leadership in terms of motivational systems.

The major premise of this model is *favorableness of the situation*, which is a result of three key factors. They are: (1) *leader-member relations* (the trust and respect

garnered by the leader; (2) *task structure* (how much the task is precisely defined); and (3) *position power* (what is available to provide rewards and punishment.)

Using the Least Preferred Co-Worker Scale (LPC), Fiedler determined that the primary motive of those scoring high on the scale was to have close, interpersonal relationships with other persons as well as subordinates. This leader will socialize with subordinates and be considerate and supportive. Task objectives are secondary unless the leader's need for interpersonal relationships has been fulfilled.

On the other hand, the task objective becomes primary to the individuals scoring low on the scale. They are concerned about performance and will further interpersonal relationships only if task accomplishment is acceptable.²⁰

The Contingency model is an integral part of this research. His concept of "motivational structure" is based on the following assumptions:

1. Every individual has a number of different types of goals which vary in importance to that individual. The degree of motivation to realize these goals also varies.

2. The goals of different types of persons are arranged into different, individual goal structures. These goals can be ranked in a hierarchy of importance. A goal having high importance for one person may have reduced or even negligible importance for another. These individual goal structures lead to different behavior patterns by different types of persons.

3. Under normal circumstances an individual will try to achieve most if not all goals. In unfavorable situations, the individual will concentrate on attaining primary goals--tending to neglect secondary ones.

4. In task situations, individuals can be arranged on a continuum with relationship-oriented persons at one pole and task-oriented persons at the other pole.

5. In addition to the primary goals of high LPC persons, important secondary goals generally include self-enhancement, prominence, and esteem from others. The secondary goal of low LPC individuals is good interpersonal relations, especially when related to accomplishment.²¹

Rank-ordering the three aspects as defined above, leader-member relations are most important, followed by task structure and then position power. Situational control is greatest where there is a trusted, respected leader interacting with a group that has like attitudes and background (homogeneity). Standard procedures would be in practice and the leader would have a high level of position power.

In this research, task structure and position power are not variable across the 35 study groups. Therefore, the leader-member relationship can and will be explained to the extent of its singular affect on group effectiveness in terms of motivation (and goal achievement).

Since leadership has been previously defined as the influence of one person on another, it is worth advancing the discussion of leadership theory into the more precise realm of interpersonal influence theory.

Interpersonal Influence

Any social encounter, then, especially that between a leader and a subordinate, involves the ability of one individual to change the attitude or behavior of another through an exchange of ideas, rewards, or punishments.

(The) leader who fulfills expectations and achieves group goals provides rewards for others which are reciprocated in the form of status, esteem, and heightened influence. Because leadership embodies a two-way influence relationship, recipients of influence assertions may respond by asserting influence in return, that is, by making demands on the leader.²²

This *social exchange* process involves receiving and providing rewards. While a leader may have power, influence is more dependent on persuasion and motivation than coercion. Responsive followership is the result of responsive leadership. "In a simple transactional view, the leader directs communications...taking into account the attitudes and needs of followers (who) evaluate the leader with regard to his or her responsiveness to these states."²³

In Yukl's extensive review of this reciprocal behavior, the influence process is the effect of one individual (the "agent") on another (the "target"). He lists eleven types of influence, ranging from legitimate requests to information distortion, suggesting that the requisite conditions and ultimate consequences vary.

One theory influencing this research looks at interpersonal influence by examining what the leader has to

offer to subordinates. Known as the *idiosyncrasy credit theory*²⁴, leaders and followers accumulate credits with each other based on their contribution to group goals. Status is achieved by earning credits. (Negative credits are also issued.) The balance accumulated as a result of interaction with other group members determines competence (SAL_c).

The leader earns credits to a large extent by the contribution made to the group's realization of goals and to the maintenance of the group's cohesiveness. The desired end-result of the leadership process is the ability of the leader to influence individuals to respond appropriately to the leader's desire. Therefore, the greater number of credits earned gives a greater capacity to influence.

The role of the leader carries the potential to take innovative action in coping with new or altered demands. But, how successful the leader is in effecting change depends upon the perception followers have of the leader's actions and related motivations (SAL).²⁵

Therefore, it is surmised that a leader who is positively motivated (which is manifested in positive actions in the organizational process) will be "credited" to a greater extent, modeled because of the high level of positive credits, and influence change and direction through the modeling process.

Power, too, is a significant element of interpersonal influence and leadership. Since interpersonal influence is defined as the ability of one individual to

change the attitude or behavior of another, then power can be viewed as potential influence that is available, but not necessarily used. Power is the capability of an individual to affect people in the same direction as their own preferences.²⁶ It is influence over attitudes and values as well as behavior.

Adler, a colleague of Freud, defined power as the ability to manipulate activities of others to suit one's purpose. Suggesting that an individual's need for power is a learned process, Adler recognized that people progress from the task aspect of power to a concern for relationships, developing trust and respect for others.²⁷

There are five bases of power: *reward*, *coercive*, *legitimate*, *expert*, and *referent*. In the first, *reward*, the leader controls some form of recognition or compensation, using these rewards to achieve milestones or objectives, an important aspect of the social learning process. Coercive power is the subordinate's avoidance of punishment. It is the negative use of reward. *Legitimate power* is the right of the leader and the obligation of the subordinate. The leader has been bestowed with certain authority and the subordinate is required, by that authority, to accept the leader. *Expert power* is derived when the leader has some special knowledge. And finally, *referent power* results when admiration and desire for approval of the leader is acknowledged by the subordinate.²⁸ All five forms of power are evident in the organizations used in this research.

According to Etzioni, there are two sources of power: *position* and *personal*.²⁹ *Position power* is the formal authority derived from the organization. *Personal power* is a result of leader characteristics and traits rather than formal recognition. (These equate to Bavelas' *personal* and *organizational* qualities of leadership.)

Legitimacy and *authority* are associated terms. That is, a leader's authority requires a legitimate basis. Legitimacy is innate in position power. It must be developed in personal power. Regardless of the source, a subordinate's perception about how that legitimacy was bestowed is key. "The essential point of legitimacy is that it produces belief that the leader has the authority to exert influence."³⁰ In this study, position power and legitimate are assumed to be constants.

On the other hand, charisma and personal magnetism are sources of personal power. Charisma refers to any combination of unusual qualities in an individual which are attractive to others and result in special attachments.³¹ An individual with such characteristics is very likely to use personal identification, inspirational appeals, and rational faith to influence subordinates. Subordinates will tend to identify, imitate behavior, and emulate beliefs of the leader who possesses such a positive appeal.

Charismatic leaders are generally more successful in influencing subordinate commitment. House's study of

charismatic leadership³² says that they are likely to have high self-confidence, a strong conviction in their own beliefs and ideals, and a strong need to influence people. Therefore, a mutual trust is developed.

By providing an appealing vision of what the future could be like, charismatic leaders give the work of the group more meaning and inspire enthusiasm and excitement among followers. The net effect is a greater emotional involvement by followers in the mission of the group and greater commitment to group objectives.³³

Charismatic leadership is characterized by role modeling and behavior imitation. Through the contagion of identification, these leaders wield power and influence in job satisfaction, personal growth and motivation. Such "charisma" may not be universal in definition, since "charismatic" leaders are generally regarded as rare. However, charismatic-type affects can be simulated through positive motivation in the leader, high self-confidence and self-esteem, and greater consideration behavior.

Summary

This section has reviewed various salient theories of leadership which provide certain insight for developing the theoretical perspective of this study.

Trait theory suggests that "personality characteristics" do, in fact, influence a leader's relationship with subordinates and ultimately leadership

effectiveness. In this study, these would include both self-reported and subordinate perceived leader competence, self-confidence, and self-esteem.

These traits operate in an environment defined by leadership style, i.e., *consideration* or *initiating structure*. The degree to which the leader emphasizes one of these styles over the other impacts subordinate performance. The literature suggests that greater consideration, or supportive behavior, facilitates a "quality" interaction between superior and subordinate, resulting in a greater potential for organizational effectiveness, presumably as a result of imitative behavior.

However, such a definition is situational and depends upon worker ability and willingness to perform the task as well as interpersonal relations, task structure and the leader's position power. Additionally, the "psychological maturity" level of subordinates, or their personal growth and self-confidence, are affected by the interpersonal relationships established with the leader.

A leader can affect these interpersonal relationships through an exchange of positive and negative credits, or rewards and punishments. Through the use of personal power characteristics (such as identification) generated because of subordinate-perceived confidence, competence, and esteem, subordinates will tend to affiliate closer with the leader.

This leader-follower environment, then, is distinctly dependent upon interpersonal relationships (as well as other influences, such as task.) But the literature suggests that interpersonal relationships set a crucial (and sometimes unforgiving) stage for leadership and ultimately organizational effectiveness.

This study proposes that this stage is heavily influenced by the level of the leader's motivation. It also suggests that the level of the leader's motivation significantly influences the level of the subordinate's motivation, which cause effective or ineffective performance and organizational productivity.

COMMUNICATION

Communication is the locus around which leadership evolves. It is through communication behaviors that the leader and the follower define "self" and "others," and develop attitudes and establish motivation patterns. The leader must recognize that mere exposure to an idea or direction is not always sufficient--people will interpret the information in different ways. This section will review salient theories which define the intra- and interpersonal concepts of communication within the context of leadership.

Intrapersonal Communication: Self-Definition

Intrapersonal communication is closed looped, i.e., the sender and receiver are the same. It is an internal process loop whereby individuals communicate consciously or unconsciously with themselves. "This process occurs whenever the individual evaluates and reacts to internal and external stimuli...It reflects physical self, emotional self, social self, self-concept, self-related roles, values, beliefs, and attitudes."³⁴

A leader must understand how information is processed internally to create meaning for personal attitudes before they can be communicated effectively to

others. Such processing is the result of a consciousness of personal impressions developed from environmental stimuli over time. From these impressions, self-concept is established.

This self-concept is developed through interaction with others and with the environment.³⁹ It includes feelings and evaluations of the self to other people based on perceptions of true feelings. Roles and reference groups interpret self-concept, giving a sense of identity.

Although self-concept is created through intrapersonal communication, it is confirmed by others. To a large extent, an individual's self concept is based on what is believed how others perceive the individual (LSA-->>SAL). The ways others react, as well as how the individual interprets and is influenced by those reactions, constitutes self-image. The structure of the self is constantly changing. A great deal of behavior is based on self-perception. "Awareness of self-image is essential to growth and change."⁴⁰ It is also essential to the determination of motivation.

This research contends that the effective leader must possess positive feelings of self-worth to reflect positive attitudes. This self-esteem is an individual's personal judgement of worthiness. These feelings come from perceptions of personal success and perceptions of how the individual compares to others.⁴¹ When expectations fall

short, negative self-images can evolve, creating defense mechanisms. If habitual, negative attitude and low motivation become evident.

A positive self-image indicates:

1. high values and principles and sufficient security to modify when necessary
2. capability to act on own best judgement even when others disapprove
3. past failures are forgotten
4. confidence in ability to deal with problems
5. equality with others
6. acceptance of praise and criticism³⁰

A strong sense of self-worth creates internal energy, a feeling of competence, and a sense of personal power. When similarly perceived by subordinates, it is expected that interpersonal attraction enhances modeling behavior.

Intrapersonal communication is the basis for all other levels of communication. Personality variables, as determined by self-concept, effect and interpret the communication and thus the leadership and motivation process. Through the definition of the self, definition of others develops and allows meaningful interpersonal communication. The enhancement of this self-communication

increases the awareness of the leader's own level of motivation and the communication of attitudes via interpersonal communication.

Interpersonal Communication

Interpersonal communication is evident in "social situations in which persons in face-to-face encounters sustain focused interaction through the reciprocal exchange of verbal and nonverbal cues."³

Interpersonal communication can be focused as follows: the nature of relationships; interpersonal needs; self-presentation; disclosure and understanding; perception; attraction; and conflict.⁴ All are interdependent and play a significant role in the leader's self-definition and the follower's perception of that self-definition.

Interaction between the leader and the follower determines the relationship they establish with each other. R.D. Laing is probably the best known researcher on interpersonal perception. He says that behavior is determined by the perception of the relationship.⁴

Underlying the concept is the difference between *experience* and *behavior*. *Behavior* is observable and public while *experience* is private and a feeling based on imagination, memory, and perception. "Inferring experience

from behavior is the heart of communication, but it is very difficult as Laing pointed out.... 'I see you, and you see me. I experience you, and you experience me. I see your behavior. You see my behavior. But I do not and never have and never will see your experience of me.'"⁴²

Experience is affected mostly by relations and perceptions with others. An individual will have a direct perspective, perceiving certain behaviors of the other person. That same individual will also experience the other person's experience by inferring what the other person is feeling, perceiving, or thinking. This *metaperspective*, as he calls it, may or may not be an accurate assessment.

In Laing's theory, the essence of interpersonal communication success is the accuracy of mutual perception in the relationship. So, too, is the essence of this research. Not only must the leader perceive self as confident and competent, but so must the subordinate perceive leader competence and self-confidence to imitate modeling.

Carl Rogers developed the concept of a *helping relationship* when one individual enters a relationship with the intent to facilitate personal growth in the other person. Such would be the expectation in a highly *considerate* leader. He outlines ten qualities of a good helping relationship, which include the traits of trustworthiness and dependability in the communicator.

Positive attitudes of warmth and caring are also essential qualities in his *congruency theory*. This theory says that if one person behaves openly and with positive regard for the other person, the other person will reciprocate with similar behavior.⁴³ Again, a reciprocal linking, or modeling of positively perceived behavior, would be expected.

Interpersonal perception is the process of establishing impressions of people and to judge relationships by inferring causes of behavior. Known as *attribution theory* or *naive psychology*, it explains the processes by which most people come to understand their own behavior and that of others.

Fritz Heider summarized as follows:

People have an awareness of their surroundings and events in it, they attain this awareness through *perception* and other processes, they are affected by their personal and impersonal environment, they cause changes in the environment, they are able to and try to cause these changes, they have wishes and *sentiments*, they stand in unit to other entities, and they are accountable according to certain standards. All these characteristics determine what role the other person plays in our own life space and how we react to him.⁴⁴

Harold Kelley advanced *attribution theory* by saying that an individual perceives based on information from more than one observation. From those observations, the perceiver can pick from a set of various causes. Also, he says, it is possible to *discount* a given cause if there are other more likely causes present. Individuals weigh the

various choices and then select based on the information available.⁴⁵ This is likened to Bandura's vicarious reinforcement proposition whereby an individual modifies personal behavior based on observing consequences of others behaviors.

From experience and learning over time, a leader can hone the perception process, aiding in decision-making and subsequent action and enhancing greater identification and imitative behavior.

The last category to be reviewed is that of *interpersonal attraction*, best exemplified by the work of Albert Mehrabian. He classifies communication behaviors into a three-dimensional model of *dominance*, *responsiveness*, and *liking*.⁴⁶ *Dominance* is determined by status. *Responsiveness* is a factor of emotional arousal and stimulation.

The most useful concept for this model, *liking*, or the *immediacy principle*, says that individuals are attracted and respond to those things that they like, and avoid those things that they don't like. *Liking* relationships can be characterized as close and direct. If the subordinate favors the motivation level of the leader, the subordinate would indeed affiliate closer with the leader, especially if the motivation is positive.

Newcomb's cognitive approach to interpersonal relationships centers around *orientation*. This orientation

is a relationship between a person and some aspect of the environment and can be positive or negative and intense or weak. As in other consistency theories, there is strain towards balance based on *importance* and *relevance*. The primary contribution of this theory is that attraction is not an isolated attitude toward a person, but rather a complex orientational system.⁴⁷

In Byrne's reinforcement approach, individuals tend to be attracted to a person when experiences with that person involve more rewards than punishments. "The ultimate attraction of one to another will be determined more or less by a simple combination of the stimuli, each weighted in terms of its magnitude or strength."⁴⁸ Expectation of positive reinforcements create strong relationships. The establishment of these relationships contribute to organizational effectiveness.

Summary

It can be seen that both intrapersonal and interpersonal processes establish the necessary values which orchestrate a potential modeling relationship. Self-definition and dyadic interaction determine the accuracy of perceptions which suggest the strength of the attraction, and ultimately imitative behavior.

It is this interconnectivity between superior and subordinate that transmits motivation modeling. Before reporting the evidence that validates this concept, the last construct, motivation, will be reviewed.

MOTIVATION

There have been numerous attempts to explain theories of motivation. Some are biological/physiological, instinctual, sensory, and emotional. Others are centered on the psychobiological needs of the individual. And still others are rooted in the evolution of learning and behavior modification. The following section will review those theories from which the present study draws its hypotheses. These include need theory, cognitive-consistency theories, work theories, achievement theory, and social learning theory.

Reviewing the orientation of motivation presented in Chapter 1, motivation is a concept used to "describe the forces acting on or within (an individual) to initiate and direct behavior."⁴ The concept of motivation helps to explain why certain behavior occurs (or doesn't occur).

There is voluminous study of motivation. This section will review only those theories which give credence to the modeling potential of motivation itself. To do this, some of the more basic theories of motivation must be mentioned to provide foundation.

Need Theory

Briefly, Maslow considered motivation as a construct relative to the individual as a whole, not simply specific behavior in response to a specific stimulus, for example. He argued that all motivation was a result of individual striving for ultimate goals, both conscious and unconscious. He proposed that individuals behave based on the amount of satisfaction of certain needs.⁵⁰

If motives are equated with *needs*, then there are varying levels, or strengths. These strengths are determined based upon the individual's personal desire to attain satisfaction of those needs. And, according to Maslow, it is also dependent upon which level of need the individual has reached. Some are "prepotent" and must be satisfied before needs higher in the hierarchy will be triggered. His hierarchy ranges from life-sustaining to more psychological dimensions as follows:

Physiological Needs. These are the essential sustenance factors such as food, clothing and shelter, basic to survival. In most cases, these particular needs are met materially through the accumulation and spending of money.

Safety Needs. Safety needs equate to security. An individual will seek organizations and relationships that will offer freedom from the threats of life.

Social Needs. Frequently, social needs become predominant as physiological and safety needs are satisfied. Here, the individual actively attempts to "affiliate" and interact with other people. Friendship and affection satisfy social needs.

Esteem. At this level, recognition of individual worth is essential. Frequently, this recognition comes from prestige or power. But most importantly, it centers around a high evaluation of self and respect from other people.

Self-actualization. An individual is self-actualized if they can fully develop their potential and achieve life goals. Competence is a key factor.

Basically, Maslow's idea that one source of behavior motivation is the need to expand one's potentialities and become all that one is capable of becoming has withstood the test of scrutiny and continues to underlie many other cognitive theories of motivation. It emphasizes both psychological growth and the full realization of human potential--competence, effectiveness, creativity, and imagination.

According to Maslow, similar to the various definitions of *consideration* and *supportive* environments, a leader should create a "climate" for employees in which they attain their fullest potential.

One extension of Maslow's hierarchy was Alderfer's Existence, Relatedness, and Growth theory (ERG).³¹ Safety, social, and esteem needs all involve interpersonal

relationships. These are recategorized as *relatedness*. Self esteem is based on internal cues of personal and goal achievement, and thus very close to self-actualization, so combined into *growth*. Finally, physiological and safety needs are both physical needs, so he calls these *existence*.

In Alderfer's theory, it is not contradictory that a person will deny basic needs in order to be creative or to gain esteem of others. Also, he says an unsatisfied need does not necessarily motivate only at that level, as in Maslow's theory. It may also be compensated for at a lower level.

This distinction is particularly important because the leader may compensate a subordinate by concentrating on relatedness needs, for example, when growth needs cannot be met on the job. Also, people will adapt by constructively channeling energies even though higher-order needs are blocked.

The idea that people do adapt and try to cope with their work and nonwork frustrations as best they can is an important one, making ERG a useful and innovative contribution to work motivation theory, discussed later.

Cognitive Consistency Theories

While need theory suggests a motive to enhance human potential on a macro scale, cognitive consistency theories deal with human behavior on a micro or situational basis.

These theories explain intrapersonal (or mental) agreement between attitudes and new information about these same attitudes. The main assumption, as best exemplified in the *Congruity Principle*, *Balance Theory*, and *Cognitive Dissonance Theory*, is that contradictory information with personal attitudes will cause tension. This tension is reduced by attitude or behavior change, and motivation.

Osgood and Tannenbaum's *Congruity Principle* asserts there is a compromise between inconsistent attitude objects. An individual must reduce a positive attitude or increase a negative attitude, or both, when related attitude objects are incongruent.³²

Balance Theory suggests that when two people interact with an event or object of mutual concern, the intrapersonal and interpersonal situation is cognitively balanced or imbalanced. In a balanced situation, persuasion, for example, is unlikely. But if unbalanced, motivation is prompted from tension. "With similar attitudes proximity will increase the degree of positive sentiment; with slight dissimilarity of attitude a mutual assimilation might be produced, and with it an increase in friendliness; with strong dissimilarities the hostility will be increased." ³³

With such an orientation, it is proposed that comparable personalities would attract because the most important variable influencing attraction between two persons is the similarity of their attitudes.

Finally, *Cognitive Dissonance* theory states that motivation results because people actively avoid inconsistent (dissonant) situations (i.e., those that are not in agreement with the individual's own attitudes.)⁹⁴

Thus, a leader's degree of motivation must be consistent with the subordinates, or vice versa. Otherwise, attitude change (on the part of either) must occur if "avoidance" is to be precluded.

The suggestion is that behavior is influenced by others. If an individual has inconsistent attitudes and behaviors when compared with, for example, the supervisor, a state of tension occurs and there is a certain level of motivation generated to reduce or eliminate that tension.

Evolving from cognitive dissonance theory, *equity theory*, simply stated, proposes that people are motivated to maintain fair relationships with others and will attempt to correct unfair relationships by making them fair. Workers compare themselves to other workers with respect to what they get out of their jobs (outcomes) and what they contribute to their jobs (inputs). For example, outcomes include wages, status and job satisfaction while inputs include skills, education, job training, and effort.⁹⁵

The initial presentation of this theory describes a "ratio" between outcomes and inputs. Each individual "calculates" his or her individual ratio. Perception is the central aspect of equity theory. The essential concern of the theory is how an individual perceives personal ratios relative to others.

A condition of equity exists when an individual perceives his or her ratio of outcomes to inputs to equal that of some relevant "other" such as another worker of relatively equal status.

Five "motivated" actions can take place when the perception of the ratio is inequitable:

1. change one's outcomes (e.g., more pay)
2. change one's inputs (e.g., work less hard)
3. choose a different "comparison other"
4. cognitively distort (e.g., rationalization)
5. leave the particular exchange relationship (e.g., resign)*

Such a ratio might also be calculated between superior and subordinate, drawing, for example, on the idiosyncrasy credit theory. Based on the perception of the relationship, a leader's high level of motivation may be debited by a subordinate's low level of motivation, causing the subordinate to perceive an inequity. A modeling effect to increase the equity is suggested.

Work Theory

Theory X and Theory Y, developed by Douglas McGregor, proposed that all management practices stem from managers' personal "theories" regarding Man. These "theories" reflect assumptions, generalizations and hypotheses about organizations and become evident in management decisions and actions affecting the superior-subordinate relationship. McGregor proposed that the way a manager interacts with his superiors, peers, and especially his subordinates depends upon the manager's philosophy regarding cause-effect relationships in behavior.

Theory X suggests that the worker's goals and those of the organization are in conflict and that workers are primarily motivated by extrinsic rewards and the fear of punishment. Therefore, given a Theory X philosophy, and since Man desires satisfaction of his basic needs, management can manipulate employees by making extrinsic rewards contingent on desired behavior.

In contrast, a Theory Y philosophy accepts the position that employees are motivated to achieve intrinsic as well as extrinsic rewards. Intrinsic rewards stem from achievement, autonomy, self-respect, self-fulfillment and are believed to be more powerful motivators than extrinsic rewards. Furthermore, employee and organizational goals do not conflict.⁹⁷

Chris Argyris studied leadership practices on individual behavior and personal growth. His "Immaturity-Maturity Theory" contends that individuals progress along a continuum of seven separate stages of growth. People are often unable to reach their anticipated levels of maturity because of the very nature of the formal organization. Since an organization is normally designed to achieve objectives best attained collectively, the individual is fit into the organization, not vice versa. Worker maturity suffers for organizational efficiency.

IMMATURITY----->MATURITY

Passive----->Active

Dependence----->Independence

Behave in a Few Ways----->Capable of Behaving in Many Ways

Erratic Shallow Interests---->Deeper and Stronger Interests

Short Time Perspective----->Long Time Perspective

Subordinate Position----->Equal or Superordinate Position

Lack of Awareness of Self-->Awareness and Control Over Self

The outcome is a need for managers to create work environments more conducive to self-growth and individual maturity. In recognition of Theory Y, if properly motivated, workers can be more productive and both organization and individual will profit.⁵⁰ More support for greater relationship-oriented, or considerate, leader.

Another researcher, Frederick Herzberg, supported both McGregor's Theory Y concept and Argyris' maturity continuum in his "motivation-hygiene theory."⁵⁹ Man has two separate, distinct and independent sets of needs affecting behavior. The first, the *hygiene* factors, describe Man's environment and serve the primary function of preventing job dissatisfaction. The second set, *motivators*, effect people towards good performance. He aligns them as follows:

HYGIENE FACTORS	MOTIVATORS
<i>Environment</i>	<i>The Job Itself</i>
Policies and Administration	Achievement
Supervision	Recognition for Accomplishment
Working Conditions	Challenging Work
Interpersonal Relations	Increased Responsibility
Money, Status, Security	Growth and Development

Hygiene needs, when satisfied, tend to eliminate dissatisfaction and work restriction, but do little to motivate an individual to superior performance or increased capacity. Satisfaction of the motivators, however, will permit an individual to grow and develop in a mature way, often implementing an increase in ability.⁶¹

These three theories provide sound evidence that in the work place, leaders must provide environmental factors which serve to provide incentive for work. They must also take into account the needs of the individual to achieve personal growth toward self-actualization.

Miner⁶² and McClelland⁶³ studied the effects of the personal motivation of the leader as a determinant of success. Using the Miner Sentence Completion Scale and the

Thematic Apperception Test, they determined that "need for achievement" rated high on the scale of leaders and the correlation between managerial motivation and success was high.

McClelland, et al.,⁴⁴ proposed a specific need theory based on the "need for achievement." They suggest that as people mature, develop and grow, they recognize, through the environment, that competence is admired by significant others. This learned need for competence becomes an effective performance motive. Achievement, that is, the need to be successful, implies accepting challenge and high goals. It is this competence that enables the imitative process.

In a similar but more recent analysis by the American Management Association (AMA), the AMA interviewed 711 chief executive officers in a variety of industries to determine what is actually known about developing potential executives.⁴⁵

It was posed that the selection process for potential leaders must "critically examine 'motivational drive'--the need to achieve results and interpersonal skills and communication ability."

In the research, the questionnaire presented potential key influences and asked each CEO to rate each item in terms of its importance in helping them achieve

their current status. Ranked very conspicuously at the top of the 21 "key influences" was "a need to achieve results."⁶⁶

Intuitively, the need to achieve results can be equated with a positive motivation for success.

Path-Goal Theory

Workers will tend to be high producers if they view high productivity as a path leading to the attainment of one or more personal goals. Some research suggests that a leader's consideration or structure initiating behavior affect the subordinate's behavior for selecting a certain path leading to goal attainment. The extent to which following a certain path is multiplied by the importance of the goals involved to the subordinate (valence) to yield the level of motivation to follow a path or engage in a specific behavior.⁶⁷

Environmental factors such as the nature of the task, also exert influence.

The focus of the theory is "how can supervisors influence path-goal instrumentalities?" It is essential that subordinates recognize that their supervisors have the authority to influence rewards and punishments and that rewards are tied to specific behavior paths.

Supervisors must make judgments as to which behaviors are high performance paths and which are low. A

supervisor high in consideration will perceive being given suggestions by subordinates and helping fellow workers as high performance paths; less considerate supervisors won't.⁶⁸

House furthered path-goal theory with the following general propositions:

1. Leader behavior is acceptable and satisfying to subordinates to the extent that the subordinates see such behavior as either an immediate source of satisfaction or as instrumental to future satisfaction.

2. The leader's behavior will be motivational, i.e., increase effort, to the extent that (1) such behavior makes satisfactions of subordinate's needs contingent on effective performance, and (2) such behavior complements the environment of subordinates by providing the coaching, guidance, support and rewards necessary for effective performance.⁶⁹

Stated less formally, the motivational functions of the leader consist of increasing the number and kinds of personal payoffs to subordinates for work-goal attainment and making paths to these payoffs easier to travel by clarifying the paths, reducing road blocks and pitfalls, and increasing the opportunities for personal satisfaction en route.⁷⁰

Such leader behaviors are referred to as directive (initiating structure), supportive (consideration), achievement-oriented, and participative.

There are also sets of conditions for subordinates, which typically include: (1) need for affiliation; (2) need for achievement; (3) need for extrinsic reward; (4) locus of control; (5) authoritarianism; and (6) ability.

Although they use somewhat different terminology, path-goal theories are linked closely with the Ohio State studies. However, in testing the path-goal theory, low to

non-existent correlations have been verified. Apparently, the scales developed for the Ohio State studies, which have been used to test path-goal theory, do not provide comparable measures of what might appear to be the same constructs.⁷¹

However, there is sufficient support to at least rule out the theory as happenstance. Most importantly, though, the close tie that path-goal theory posits between leadership and subordinate motivation has a sound logic to it, especially in the "guiding, coaching" role of leadership as it relates to motivation.

The current research assumes that such "guiding, coaching" results in greater occurrence of imitative behavior.

Social Learning Theory

Finally, and of direct impact on this research, is social learning theory. Individual behavior in organizations and resultant performance, productivity, and effectiveness are critical dimensions in current studies of leadership, management and organizations. Most frequently, current approaches to organizational behavior are characterized as concerned with two major issues: (a) the *understanding* and (b) the *influencing* of behavior.⁷²

Individual behavior is attributed to many different causes, as exemplified by the previous discussion of the many varied theories of motivation. Obviously, the understanding of behavior is very complex and provides as many questions as answers when a leader attempts to understand means by which he or she might influence the behavior of subordinates. Social learning theory attempts to link together behavior and cognitive processes, specifically, learning.

Rotter pioneered social learning theory with the assumption that human behavior is motivated by goal attainment. Not unlike other learning theories, reinforcement plays a crucial role in the amount of learning that occurs. However, he introduces a new concept known as *meaningful environment*. He says that only *meaningful* events will affect behavior. An individual must process information from the environment and match it with memories of past experience. For a behavior to be motivated, there must be a strong reinforcer and a high probability that it will be attained. In other words, both value and expectancy play a role in motivation."

This expectancy-value theory has two important strengths. First, the theory is geared exclusively to complex human behavior in a social environment. And secondly, it recognizes individuality, i.e., people are goal directed, but their goals, expectancies and reward values are individually defined.

Social learning theory, as further interpreted by Albert Bandura, continues to develop the behavior-cognition linkage. According to Bandura, behavior is an interactive function of the individual (including his or her cognitions), the individual's enacted behavior, and the environment in which the behavior occurs.⁷⁴

Bandura's theory, known as Modeling (also sometimes imitation, copying and matching), or Vicarious Learning, posits that an individual (Observer, O) learns from the consequences experienced by a model (M) rather than from outcomes stemming from his or her own performance attempts.

Within the process of modeling are four stages. The first, *attention*, concerns the processes that determine which models are singled out for observation and the behaviors that are selected from the observations. *Retention* concerns the storage of observations in memory by means of imagery and/or verbal coding. *Motor reproduction* involves the reproduction of these stored mental guides as appropriate action when cued by an appropriate situation. Finally, *motivational processes* concern various reinforcers (environmental, self-applied, and vicarious) that serve as incentive to perform the vicariously learned behavior.

If an observer is to learn effectively from a model it is important that the model be credible, reasonably successful, clearly display the behavior to be learned and otherwise facilitate the attention process. Similarly, successful retention of observed behavior requires more than just observing the model--it usually requires going over (rehearsing) the modeled sequences of behavior either physically or mentally.⁷⁵

Additionally, people will tend to increase the frequency of behavior that has resulted in positive consequences, and will tend to decrease the frequency of behavior that has resulted in negative consequences.

A critical concept of the modeling process is that of "antecedent learning," that is, behavioral change can occur as a result of a discriminative stimulus that occurs *before* the behavior. For example, a goal that influences subsequent subordinate behavior would be "antecedent." Bandura emphasizes this process as "vicarious" learning.

Individuals are not dependent on direct experience of the consequences of their behavior for learning to take place. An individual learns by observing the consequences (rewards and punishments) associated with behavior exhibited in the model.⁷⁶

By observing a model of the desired behavior, an individual forms an idea of how response components must be combined and sequenced to produce the new behavior. In other words, people guide their actions by prior notions *rather than by relying on outcomes to tell them what they must do.*⁷⁷

In a study conducted by Weiss, it was reported that interpersonal attraction, credibility, status and competence of the model influence the probability that an observer will imitate the modeled behavior. Likewise, the observer's low self-esteem and need for external reinforcement also enhance the modeling process.⁷⁸

A majority of the research on modeling has focused on training strategies. Manz and Sims found that modeling techniques are effective when employees (1) observe the target behavior, i.e., the specific behavior to be learned through such methods as film and video tape; (2) can practice what they have learned; (3) are given feedback; and (4) are given the opportunity to apply what they have learned back to the job."

"Social learning theory explains that individuals are active and observing who profit from the experiences of others and store these observations symbolically for future use and regulate behavior through intrinsic rewards."⁸⁸

This becomes the central thesis of this research. As observers, subordinates will actively vary personal behavior in a manner that is consonant with the behavior of the leader. Certain conditions enhance this modeling process. These conditions serve as the independent variables and will be explained in Chapter V.

Summary

Motivation, then, must be assessed as a multi-path variable. Critical to leadership is the motivation of the leader, the motivation of the individual subordinate(s), the motivation of the group or organization, and the motivational environment that is impacted by other players.

Motivation is accepted as an integral dimension to organizational effectiveness. But few studies have correlated the level of leader motivation with the levels of follower motivation. The tradition has been that leaders must provide some level of motivation for the subordinates through job enrichment, recognition, reward, etc.

All too often, it is overlooked that the leader, too, is a member of a reference group, and extracts levels of personal motivation, just as the leader's subordinates, from roles, norms, etc.

What effect does that motivation have on the level of motivation of the followers and ultimately the effectiveness of the organization? This study addresses that issue.

CHAPTER IV

VARIABLES, INSTRUMENTS, AND OPERATIONAL DEFINITIONS

In developing this theory, numerous variables have been measured and appropriate statistical analysis applied. This chapter will review each of the variables, describe the instruments used to measure them, and provide operational definitions.

Motivation to Manage (MM)

As the dependent variable, motivation to manage defines the leader/manager's positive or negative attitude toward his or her role as a leader/manager. In an attempt to develop this theory of leadership/management motivation in large, complex, bureaucratic organizations, Miner drew from both role theory as well as the Ohio State studies.

He identified a set of role prescriptions that seem to appear with high frequency in large, formalized, and rationalized organizations that function in a bureaucratic manner. Miner says, "Role prescriptions can differ considerably from one organization to another. Yet, there do seem to be some requirements which appear again and again in association with a great variety of managerial positions."

His theory suggests that individuals who are more positively inclined toward these prescriptions are likely to be more successful than those individuals who are negatively inclined toward them. Based on in-depth studies of large organizations, his role prescriptions and motivational patterns are as follows:

1. Managers are expected to behave in ways which do not provoke negative reactions from their superiors; ideally they will elicit positive responses. A manager must be in a position to obtain support for his actions at higher levels. This requires a good relationship with superiors. It follows that a manager should have a generally positive attitude toward those holding positions of authority over him. Any tendency to generalized hatred, distaste, or anxiety in dealing with people in positions of authority will make it extremely difficult to meet job demands. Interactions with superiors will either be minimal or filled with so much negative feeling that the necessary positive reactions and support cannot possibly be attained.

2. There is a strong competitive element built into managerial work. Managers must strive to win for themselves and their subordinates and accept such challenges as other managers may offer. In order to meet this role requirement a person should be favorably disposed toward engaging in competition. If he is unwilling to compete for position, status, advancement and his ideas, he is unlikely to succeed. Any generalized tendency to associate unpleasant emotions, such as anxiety and depression, with performance in competitive situations will almost inevitably result in behavior which falls short of role demands.

3. Although the behaviors expected of a father and those expected of a manager are not identical, both are supposed to take charge, to make decisions, to take such disciplinary actions as may be necessary and to protect other members of a group. Thus, one of the common role requirements of the managerial job is that the incumbent behave in an active and assertive manner. It follows that a desire to meet these requirements will generally lead to success in managerial work. Those who prefer more passive behavior patterns, no matter what their sex and those who become upset or disturbed at the prospect of behaving in an assertive manner would not be expected to possess the type of motivation needed. The

managerial job appears to require an individual who obtains pleasure from performing as prescribed by the traditional father role in our society.

4. The manager must exercise power over subordinates and direct their behavior. He must tell others what to do and enforce his words through appropriate use of positive and negative sanctions. The individual who finds such behavior difficult and emotionally disturbing, who does not wish to impose his wishes on others or believes it is wrong to do so, would not be expected to meet this particular role prescription. Subordinates must be induced to perform in a manner which will be conducive to the attainment of organizational goals, and the person placed in a position of authority over them would therefore ideally desire to behave in ways calculated to achieve this objective.

5. The managerial job requires a person to stand out from his group and assume a position of high visibility. He must deviate from the immediate subordinate group and do things which inevitably invite attention, discussion, and perhaps criticism from those who report to him. When this idea of standing out from the group elicits feelings of unpleasantness, then behavior appropriate to the role will occur much less often than would otherwise be the case. It is the person who enjoys being the center of attention who is most likely to meet the demands of the job in this area. Such a person has many of the characteristics of a good actor.

6. There are administrative requirements such as constructing budget estimates, serving on committees, talking on the telephone, filling out forms, and so on in all managerial work, although the specific activities will vary. To meet these prescriptions a manager must at least be willing to face this type of routine and ideally gain some satisfaction from it. If such behavior is consistently viewed with apprehension or loathing, a person's chances of success are low. A desire to avoid or put off the administrative duties of the managerial job can only result in deviation from role prescriptions, and thus in less effective performance.²

The thrust of Miner's theory is to determine what do successful managers do and what are their attitudes and behaviors? How do you compare successful with less successful managers? It was those prescriptions identified

above that answered his research questions. But while probably salient to most organizations, it was scientifically valid only in larger, formally structured, output oriented organizations.

It is important to note that Miner's theory differs from other leadership/management/motivation theories in that it is of limited domain. Rather than explore the effects of motivation on a global scale, motivation to manage theory is more operationally useful.

The theoretical objectives have been held to manageable proportions; that we have been working out of a limited domain theory, rather than a grand theory; that our theoretical weapon has been more analogous to a rifle or a shotgun with a considerable choke, than to a blunderbuss. The goal has not been to understand, predict, and control with regard to all human motivation, but to achieve these scientific objectives with regard to the motivation of people in a particular type of job, in a particular type of organization, under a particular type of control system.³

There is very little research relating role-motivation theory to need theory, achievement theory, motivation-hygiene theory, or equity theory. Likewise, there is no research identifying a relationship between various leadership theories such as path-goal theory.

Miner's theory does parallel to some extent McClelland view on achievement and power motivation and Fredler's contingency theory.

McClelland attributed managerial success to socialized power motivation, where the expression of power needs is curbed or muted by inhibitory forces (which) seem to suggest a highly similar concept to managerial motivation.

Under conditions where leader-member relations are good, the task to be performed is highly structured, and the inherent power of the leader's position is strong, low LPC provides the key to success. The low LPC leader is said to be highly task and goal-achievement oriented. The conditions here approximate those of the ideal bureaucracy and the description of the low LPC leader is not unlike that of the person who has a high motivation score.⁴

(It should be noted that, although Miner calls his theory "motivation to manage", his role prescriptions include both leadership and management functions. For example, Miner's prescriptions of assertiveness, imposing wishes and competitiveness are clearly functions of leadership, while administrative tasks and respect for authority figures are clearly management orientations.)

In studies of various types and levels of management (R and D, marketing, department store, scientific, personnel, industrial relations, army officers, school administrators, and graduate students, as examples), all 21 studies cited by Miner yielded significant results, 12 at $P < .01$. Studies conducted outside the domain of the theory, i.e., not in a bureaucratic-type environment, failed to produce significant findings, supporting his hypothesis.

To measure his construct, Miner developed the Miner Sentence Completion Scale (MSCS). Miner offers findings which support the construct validity of the MSCS,

consistently supporting the interpretation that it is a measure of motivation to manage and not a measure of other types of motivation. Other construct validity data, involving the correlation of the MSCS with other instruments (Kuder Preference Record, Strong Vocational Interest Blank, Gough Adjective Check List, Myers-Briggs Type Indicator, and Ghiselli Self-Description Inventory) clearly indicates an overall pattern of results supporting the motivation to manage interpretation.⁵

The original MSCS was completed through a projective process where scorers determined whether responses were positive, negative, or neutral. While Miner received criticism of his scorer techniques, he provides compelling evidence which indicates the soundness of his procedures.⁶

However, the multiple choice MSCS, used in this research, offers a shift from projective to objective measurement, and, too, is validated as a significant predictor of managerial success. As an outgrowth of the original scale, using test-retest separated by a ten week period, Miner reports reliability coefficients ranging from .68 to .84 with a median of .81 for total motivation scores in various samples.

Miner continues to validate that the higher the total MSCS score, the higher are grade level performance ratings, compensation, success, and position within several industries and businesses. Total MSCS scores also accurately forecast promotion into management, changes in grade level

and performance, and other predictors of success.

OPERATIONAL DEFINITION. The variable "motivation" in both the leader and the subordinate is measured by the Miner Sentence Completion Scale. Each respondent is asked to complete the 40 multiple choice questions. Level of motivation is assessed as the total score (-35 to +35) as reported by the MSCS. Higher scores indicate greater positive attitude toward leader/manager roles, i.e., greater motivation.

Leadership Style (St)

This research contends that modeling is enhanced if the leader is more relationship oriented, that is, more supportive of subordinates than task oriented.

A vast amount of research has attempted to capture various styles available in the repertoire of leadership. There have been various continua, but most range from authoritarian (or autocratic) to democratic.

At one extreme is the autocrat, who is best characterized by the individual who imposes his or her will upon a group in order to perform a task. Such a definition implies authority from some source and unquestioning obedience from subordinates. Such a leader determines all policy matters and normally directs subordinates by dictating one step at a time. Communication flow is controlled by the leader, and usually sparse.

At the other end of the scale is the participative leader. Rather than an arbitrary approach to leadership, this leader sees the leader's function as goal advancement through cooperative group interaction, openly inviting subordinates to share in decisions, policy-making and operation methods.

He or she encourages group discussion and decision when feasible and looks for alternative solutions for group consideration. As a democratic leader, they "join" the group and abide by the group's decisions. As a consultative leader, team involvement, discussion, argument, and group recommendations are considered, but the leader maintains final authority for decisions.

A basic difference in these styles of leadership is the amount of decision making retained by the leader. While the autocratic leader makes all decisions, the democratic leader encourages and assists the group in making decisions.

There are other leadership styles between these two extremes. In fact, many would argue that democratic leadership is not at one end of the spectrum. Rather, the laissez-faire leader, characterized by complete freedom of group action and no real directive leadership role, represents a synthesis to authoritarianism.

Another is the bureaucratic leader. This leader draws authority from the organization and leads and manages by the book as defined by the organization. Again, much

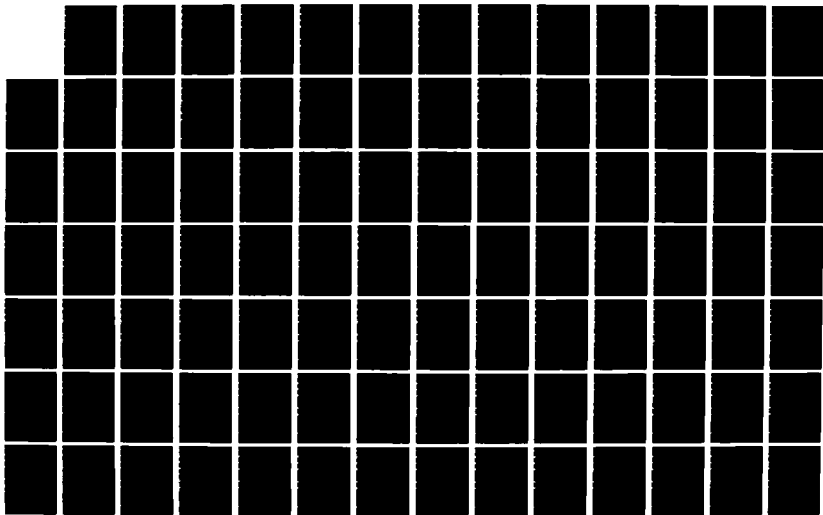
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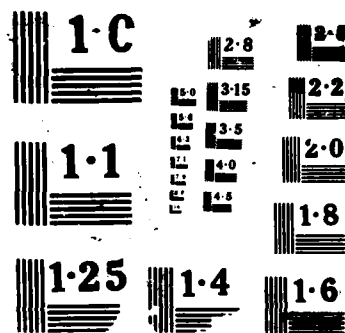
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as the autocratic leader, this style calls for "telling" what and how to do. Deviation from expected norms is not accepted and little individual freedom is permitted.

Since the next variable to be discussed, OC, is designed to measure the autocratic-democratic spectrum, St will be a more precise look at relationship versus task orientation.

Evolving from the Ohio State Studies, scales to measure *consideration* and *initiating structure* were developed. Items on the Consideration scale describe behaviors that indicate a regard for the comfort and well-being of the group members, as well as an equalitarian respect for the members' contributions. Items in the Initiation of Structure scale describe behaviors that clearly define the leader's role, and structure the expectations of the members.

The original scale, the Leader Behavior Description Questionnaire (LBDQ) was followed by an industrial version, the Supervisory Behavior Description Questionnaire (SBDQ), and the LBDQ-Form XII, by Stogdill.

The LBDQ was primarily designed to measure factors concerning the consequence about a leader's behavior. In a comparison of the three scales, measurement of initiating structure and consideration, reliabilities were .81 and .93 for the LBDQ, .68 and .81 for the SBDQ, and .78 and .90 for the LBDQ-XII. Numerous studies have shown the LBDQ XII to be the most psychometrically sound.

These two dimensions are used in this study because of their extensive usage in leadership research. For example, two-thirds of all pre-1980 leadership field studies and over three-quarters of all studies of perceived leader behavior used these Ohio State categorizations.⁷

Stogdill tested the differential validity of several subscales by writing scenarios for that pattern of behavior, having that pattern acted out by experienced actors, with observers using the LBDQ-XII to describe the supervisor's behavior. Stogdill concluded that the scales measure what they purported to measure. In numerous other factor studies, similar validity was verified.

OPERATIONAL DEFINITION. Leadership style is defined as the degree to which the subordinate perceives the leader emphasizes consideration behaviors more than initiating structure behaviors. It is calculated based on the difference between the total consideration score (5 to 50) and the initiating structure score (5 to 50) on the LBDQ XII. A higher positive score identifies a leader with more consideration than initiating structure behavior. A negative score indicates greater initiating structure behavior.

Organizational Characteristics (OC)

Paralleling the concept of leadership style must be an assessment of the influence of that style and other mechanisms on organizational processes. Lewin, Katz, Cartwright and Zander, MacGregor, Blake and Mouton, Likert, Bowers and Seashore, Fiedler, and Yukl are just a representative sampling of the many researchers who have classified the two extremes of leadership--autocracy and democracy.

Stogdill suggested that these "dichotomies of leadership" had similar characteristics, yet offer divergent orientations. For example, the multi-faceted democratic/autocratic spectrum refers to the way power is distributed, whose needs are met, and which way decisions are made. Participative/directive refers primarily to how decisions are made. Relations-/task-oriented leadership focuses on whose needs are met. Consideration/initiation of structure questions deal with how decisions are made and to the structuring of tasks and goals and role relationships. And finally, laissez-faire/motivation to manage examines the extent to which leadership is avoided or attempted.*

There are numerous methodologies for measuring trends in productive capability and therefore the value of an organization's assets. Likely the most massive effort was that undertaken at the Institute for Social Research at the University of Michigan. Through a series of studies, a

rationale for organizational improvement was developed. It relied partly on "democratizing the leadership patterns in the organization, predicated on the efficacy of democratic over autocratic processes."

The result was Likert's¹⁶ four systems of interpersonal relationships in large organizations: exploitative autocratic (System 1); benevolent autocratic (System 2); consultative (System 3); and democratic (System 4). The thesis was that if an organization moved away from the autocratic to the democratic form of organization, productivity and employee satisfaction would increase.

The following are brief descriptions of each system:

System 1: Superiors and subordinates have no mutual confidence or trust in each other nor do either support each other. Motivation is generally accomplished through fear tactics and punishment. The majority of the personnel dislike the organization and supervision. Most communication is downward and leaders have little understanding of subordinates. Interpersonal relations are sparse between leader and subordinate. Decision-making and control is centralized in the top echelon, with little input or feedback from subordinates. Informal organizations oppose the formal one.

System 2: While many of the same characteristics in System 1 exist, some supportive behavior is seen, although normally condescending. Rewards are used and subordinate satisfaction is improved. Superiors are starting to have

some feel for employees needs and wants, but there is still little interaction. Orders are issued without regard to subordinate comment. However, there is sometimes one-on-one consultations with individuals. Informal organizations are less resistant of the formal one.

System 3: There is significant enhancement of confidence, trust and supportive behavior inspired by greater interaction. Open discussion between superiors and subordinates is not unusual. Rewards and involvement by superiors provide motivation and subordinates generally feel good about their relationships and the organization. Two way communication results in a greater understanding of subordinates. Decision-making is a consultative process, however, the decisions are still made at the top. Informal organizations, if they exist, generally support the goals of the formal organization.

System 4: This phase is characterized by high confidence, trust, motivation, two-way communication and interaction, group participation in goal-setting, and high satisfaction with regard to group membership. Decision-making is seen throughout the organization. Informal and formal organizations are identical.

Briefly, then, System 1 is authoritarian, task oriented and System 4 is based on a greater team emphasis generating mutual trust and support.

The Profile of Organization Characteristics (POC) measure the location of the organization on the spectrum between System 1 and System 4.

The POC has been administered extensively resulting in correlations with performance ranging from .3 to .6 and among the scales of leader, peer, subordinate, and organizational behaviors from .4-.8.

OPERATIONAL DEFINITION. In determining the characteristics of the organization, each subordinate will assess the unit by completing the POC. Each subscale is assigned a value from 1 to 4. A higher score as determined by the mean value of the 18 items indicates a more democratic organization.

Leaders' Personal Qualities (LPQ)

Certain personal attributes of the leader are closely associated with influence on the morale and attitude of subordinates. The self-concept of the leader is proposed as among these. As an independent variable, it answers two basic questions for the leader: Who and what am I? It represents the leader's self-perception. There is a third facet more evaluative in nature--a feeling of worth or unworth, success or failure, can or can't do.

Self-concept is of special concern because a great deal of research, to include this study, suggests a direct correlation between this attitude of self and performance. That is, a positive self-image is an asset.

It typically moves the leader to better performance and frequently "motivates" the subordinate in a more positive direction. It seems necessary that the subordinate *perceive* this self-confidence in the leader. It is not enough for the leader to simply possess the trait, but it must be similarly interpreted by the subordinate.

Perception is certainly a distorting factor in the process of cause and effect analysis between leader and subordinate. Perception has been defined as "the process of becoming aware of objects, qualities, or relations by way of the sense organs."¹¹ It has also been noted that "while sensory content is always present in perceptions, what is perceived is influenced by set and prior experience, so that the perception is more than a passive registration of stimuli impinging on the sense organs."¹²

The subordinate as well as the leader think, feel, and act in response to the environment and others as they perceive it. Therefore, the self-concept is a picture of the individual in relationship with that environment.

This personality factor in the leader determines the relationship between character and the individual the leader outwardly depicts.

In assessing this self-concept and perceived self-concept, three scales were chosen which have historical foundation. The first scale measures self-esteem and was developed by Rosenberg to measure attitudes toward the self along a favorable-to-unfavorable dimension. Several criteria were considered in the development of the scale: self-respect; self worthiness; at least on a par, but certainly no worse than others; and not necessarily perfect, but aware of limitations and has expectations to grow and improve.¹³ His initial sample consisted of more than 5000 subjects.

The reproducibility of the scale (using the Guttman procedure) was 92 percent and its scalability was 72 percent for his sample. Documented test-retest reliability of .85 has also been reported.

Several attempts to assure validity included a comparison of subjects completing the S-E scale and then independent ratings by nurses using the Leary Scales. There was significant association between self-esteem and depression. Also, there was significant correlation between self-esteem and depressive affects as measured by another self-administered scale. Based on these and other correlations, Robinson and Shaver recommend this instrument where a short and general index of self-esteem is required.

Like internal control, personal competence is a measurement of personal efficacy and a feeling of mastery over the self and the environment. There is ample evidence that the degree of an individual's competence in a task determines the facilitation of learning, or modeling.¹⁴ As suggested by Miller and Dollard, it is likely that early in life, discriminative learning takes place in which situations, models, drives, and other stimuli are differentiated in terms of their instrumental association with imitative behavior.

Although, as with other dimensions, differentiation of models may occur for a variety of attributes, most of these connote some degree of environmental competence. Age, brightness, status, and skill are among the attributes suggested.

Campbell's original personal competence scale was constructed to determine a "sense of political effectiveness." The authors also found that personal competence correlated positively and significantly with strong-mindedness and trust.¹⁵

Average inter-item correlation for the original administration was .16. Personal efficacy was related to education and political awareness. The authors interpreted the complex pattern of relations to mean that education, among other things, contributes to the feelings of personal effectiveness. Consistent replications of this pattern in later studies supports the construct validity of this scale.

An important component of effective leadership is how well a leader uses power in directing subordinates. This is especially important when leaders lack charismatic-type qualities needed to develop personal loyalties, and of necessity must rely upon the application of position power to direct subordinate performance.¹⁶

The self-confidence questionnaire used in this study was originally designed to determine whether confidence in leadership ability was related to reliance upon passive or nonpassive leadership techniques to cope with supervisory problems. Seventy-seven respondents were asked to rate how satisfied they were with their own performance in each of several leadership skills. The sample consisted of Navy Petty Officers selected to set up leadership training courses at their next duty stations.

Split-half reliabilities ranged from .82-.91. Previous research found that the respondents were consistent over several leadership problems in whether or not they would talk to a subordinate about his poor performance, would refer him to a superior, or would place him on report. The reliabilities reported confirmed the findings of individual consistency in choice of leadership actions. The corrected split-half reliability of the Self-Confidence scale was .81.¹⁷

Self-confidence is self-perpetuating, that is, self-confidence nurtures self-confidence. Hochbaum showed that the more competent a person perceives himself to be, the less will his perception of his competence be influenced by disagreement with his reference group.¹⁰

Results of experiment using the self-confidence questionnaire indicate that doubt about one's leadership abilities leads to what has been described as a "buckpassing" approach to leadership. If one were to model a motivational pattern of a leader, it is suggested that the subordinate is more inclined to model a leader who is confident in their skills rather than one who is unable to adequately perform the leadership role because of doubts about their ability.

OPERATIONAL DEFINITION. Each commander will self-report self-confidence, self-esteem, and competence using the Kipnis (7 items), Rosenberg (10 items), and Campbell (8 items) instruments. Higher scores on each indicate greater self-confidence, self-esteem, and competence, respectively. The same scales were modified and each subordinate asked to assess the traits as perceived in the leader. Higher scores indicate greater perceived leader self-confidence, self-esteem, and competence.

Internal Versus External Control of Reinforcement (SLC)

People have clear-cut beliefs about the extent to which they personally can control their own actions as well as environmental events. Research has shown that such a belief is held reliably and relates to the way a person behaves in a variety of situations. Known as *locus of control*, Rotter hypothesized that some people believe that their behavior does have consequences: what they do makes a difference. These individuals have internal locus of control. Externals believe that their behavior has no influence over either positive or negative occurrences.¹⁹

Closely aligned with need for achievement, several studies have shown that individuals with a high need for achievement have been found to have more internalized attributions, of believing their own actions lead to outcomes, than subjects who were low in resultant need for achievement. The evidence from a number of studies²⁰ reveals that the achievement motive, internalized locus of control, and attributing one's success to skill and effort form a cluster of beliefs which lead to successful performance.

Reviewing briefly Rotter's social learning concept, he suggests that the potential for any behavior to occur in a given situation is a function of the person's expectancy that the given behavior will secure the available

reinforcement, and the value of the available reinforcements for that person. A reinforcement acts to strengthen this expectancy that this particular behavior will be followed by reinforcement in the future. "Once an expectancy for such a behavior reinforcement sequence is built up the failure of the reinforcement to occur will reduce or extinguish the expectancy."²¹

Rotter proposed that one would anticipate that the more clearly and uniformly a situation is labelled as skill or luck determined, the lesser the role such a generalized expectancy would play in determining individual differences in behavior. Therefore, learning, or modeling, under skill conditions is different from modeling under chance conditions.

This variable is of major significance in understanding the nature of learning processes in different kinds of learning situations and also that consistent individual differences exist among individuals in the degree to which they are likely to attribute personal control to reward in the same situation.²²

In the development of his theory, he was concerned with the effects of perceived internal vs. external control of reinforcements, that is, whether a person has control over what happens to them. Numerous studies measuring this construct were reviewed by Lefcourt, who concluded that this variable is a valid construct and extends some of the research in causal relationships and development of mastery by Piaget and Adler.

Rotter himself discusses the similarity of this concept with alienation, competence, field dependence, and ego-strength.

Rotter's unusually consistent findings:

1. People in American culture have developed generalized expectancies in learning situations in regard to whether or not reinforcement, reward, or success in these situations is dependent upon their own behavior, or is controlled by external forces, particularly luck (or) chance, which are fairly consistent from individual to individual. If subjects perceive a situation as one in which luck or chance determines the reinforcements, then they are less likely to raise expectancies for future reinforcement as high following success, as if they perceive the reinforcement to be dependent upon skill or their own efforts.

2. Not only do subjects in general differentiate learning situations as internally or externally determined but individuals differ in a generalized expectancy in how they regard the same situation.²³

Thus, measurement of this variable is important for assessing the value a subordinate might apply to modeling the leader's motivational behavior and how direct subordinate's might differentially perceive the relationship with the leader. But even more telling is his final conclusion.

Through his (and others) series of studies, there is strong support that indicates an individual with a strong belief that he or she can control their own destiny is (a) more alert to those aspects of the environment which provide useful information for future behavior; (b) take steps to improve environmental conditions; (c) place greater value on

skill or achievement reinforcements and be generally more concerned with ability, particularly failures; and (d) be resistive to subtle attempts to influence.

The measurement tool of choice for this study is Rotter's Locus of Control Scale, a forced-choice-type measure offering alternatives between internal- and external-control interpretations of various events. Following several revisions based on item-analyses, social desirability controls and studies of discriminant validity, a 29-item, forced-choice questionnaire was produced. Six of the items are "fillers". The other 23 offer choices between internal and external belief statements. The total score is computed by summing the number of external beliefs endorsed.

The test-retest reliability of the 29-item scale is consistent and acceptable, varying between .49 and .83 for varying samples and intervening time periods. The performance of subjects on the I-E scale is consistent with their performance on a variety of other self-report devices, to include the California Psychological Inventory and the Adjective Check List.²⁴

According to Rotter's various experiments, internal consistency estimates are relatively stable and are reported in extensive tables in his 1966 monograph.

For example, a Kuder-Richardson internal consistency analysis resulted in $r = .70$ for both males and females. Test-retest reliability coefficients were also computed with similarly acceptable results. Correlations with the

Marlow-Crowne Social Desirability Scale range from $-.07$ to $-.35$. Several factor analyses reported by Rotter support the assumption of unidimensionality of the I-E scale and numerous laboratory and survey studies give evidence for its construct validity.

OPERATIONAL DEFINITION. Each subordinate completes the modified 20-item Rotter Locus of Control Scale. One of each of the paired items is identified as indicating greater external locus of control, with that one item scored as $+1$. A higher score ($0-20$) indicates a greater need for external reinforcement.

Productivity (Prod)

One last variable in the research is that of productivity (Prod), or output. In this study, it is operationally defined as the level of attainment of specific goals. On an interval scale, each organization is rank-ordered based on certain qualitative and quantitative criteria. Higher productivity is defined as a higher interval rating on the productivity scale.

CHAPTER V

RESEARCH METHODOLOGY

According to Miner's hypotheses, motivation to manage is most suitably and scientifically validated in large, bureaucratic organizations. Intuitively, his six role prescriptions would seem relevant in all organizations, however, there is currently no scientific evidence offering proof.

Therefore, it was essential to select an organization that meets his definition of a large bureaucracy. For this research, the study was conducted in the United States Air Force Recruiting Service (USAFRS), an organization consisting of more than 3000 personnel. The overall organization is geographically divided into 35 subordinate organizations, or squadrons (SQ).

Following is the rationale for the selection and comparison of these specific organizations:

a. All 35 organizations have a standardized organizational structure and authority lines. Status, position (legitimate) power, and responsibility of each of the commanders (generally lieutenant colonels) and subordinate supervisors (captains and chief master sergeants) is relatively equal based on military rank,

definitive job descriptions, Air Force regulations, and Recruiting policies. Each commander has nearly identical formal rewards and punishments available.

b. Each squadron has a very specific measurement of organizational effectiveness, or productivity (output). This measurement is calculated through two very precise formulations: goal allocation and competition. Each squadron is assigned monthly and/or annual goals in 14 separate programs (e.g., enlistment programs for those with no previous military service experience; pilots; navigators; nurses; and physicians.)

Goals for each of these programs are calculated on a variety of factors, generally categorized as market factors (including population, schools, military installations, and unemployment); manpower (i.e., how many individuals are assigned to accomplish a goal); and propensity, a determination of potential based on historical accomplishments.

Derived from the total USAFRS goal, each squadron, then, receives a "fair-share" proportion, which would approximate equal levels of effort for each of the 35 squadrons in each of the 14 programs. This distribution of goals allows all squadrons to be competitive in the national rankings, or competition system. Although admittedly not a

foolproof system, it factors out many of the inequities, leaving such constructs as leadership and motivation as a major influencing variable in assessing performance, or productivity.

In determining performance, a national competition system is devised which assigns weighted values to each of the fourteen programs as well as other qualitative and quantitative factors. This weighting is designed to define program priorities for the subordinate organizations so they can best determine resources to be allocated to specific programs.

For example, a program such as pilots may receive minimal value because the requirements are small yet the supply, or the number of people looking for pilot positions, is high. Thus, the program is less difficult than the physician program, for which the relative supply/demand ratio is smaller, therefore, the pilot program receives a lesser weighted value.

Then, monthly, quarterly, and annually, each of the 35 squadrons is intervally ranked 1-35 based on their total performance in all measured competition areas. For this study, some modification has been applied to these rankings, primarily for the purpose of masking specific organizations to maintain anonymity.

Interval rankings in this study are based on 16 months of performance (October 1, 1985-January 30, 1987.) In general, the squadron identified as "1" has met and

exceeded its goals more than the 34 other squadrons during this time period, "2" more than the lower 33 squadrons, etc. Squadron "35" has the worst performance of the 35 squadrons.

c. The tools and methods for obtaining goals is standardized throughout the 35 organizations. All personnel receive identical initial and on-going training and periodic inspections and evaluations ensure standardized use of these tools and methods.

d. As expected in a military organization, there is a prescribed set of social behaviors, norms and roles. Status is conferred via rank and position.

e. Pay is not a motivator for enhanced performance, as salary and bonuses are determined by public law. Salary also does not determine status as all captains receive basically comparable pay based on time in the service. Promotion and upward mobility are also not necessarily motivators as the immediate supervisor does not directly determine rate of advancement. Although annual performance reports are rendered on each individual, promotions are determined by a central selection board, and each individual is "compared" with peers Air Force-wide. An individual can only be promoted during certain time phases. For example, once promoted to captain after four years of commissioned time, more than 95 per cent of the captains cannot be

promoted until their eleventh year of commissioned service. The majority of the subordinate officers in this survey are not yet eligible for promotion.

f. Job security is not a threat, unless an individual is relieved of duty for cause, which would include a severe breach of integrity or willful violation of regulation or policy. This is a very rare occurrence.

g. The relationship between the leader and the subordinate supervisor is a formal and recognized dyadic relationship. While it is "formally" standardized by rank, military courtesy, etc., it is obviously varied by personality, motivation, competence, etc., the main determinants of this study.

Given these sets of conditions, many of the situational "motivators" normally at work within an organization are factored out, placing the leadership itself and the relationship between the leader and the subordinate on a more significant plane. This allows the research to concentrate more directly on the correlation of the level of motivation generated between leader and subordinate supervisors.

The specific sample for this research consists of 35 squadron commanders and their seven subordinate supervisors [six captain staff officers (operations, advertising, resource management, officer training school, nurse, and health professions) and one chief master sergeant superintendent]. The procedures for data collection are as follows:

Two separate questionnaires were constructed, one for commanders and one for subordinates. The commander's scale consisted of a self-report of confidence, esteem and competence as well as motivation to manage. The subordinate scale measures organizational characteristics, leadership style, locus of control, subordinate perception of the leader's confidence, esteem and competence, and motivation to manage.

Before administration of the surveys, several preparatory steps were taken to enhance the credibility and return rate of the surveys. First, permission and endorsement were received from the USAFRS commander (brigadier general) and a cover letter from the USAFRS vice-commander was included with the survey instructions encouraging honest evaluations and reaffirming anonymity. Second, the survey was authorized as a United States Air Force survey by the USAF Military Personnel Center. By assigning a survey control number, respondents were aware that this was indeed a legitimate survey.

Just prior to the distribution of the instruments, a letter was sent from a senior officer to each of the 35 squadron commanders, advising them that the survey was forthcoming and asking for their local endorsement of anonymity and honesty.

Rather than distributing the surveys directly to each of the 35 commanders and 245 subordinate supervisors, each squadron operations officer was designated as a survey officer. A personal letter from a senior officer was addressed directly to the operations officer, describing in detail the procedures. The operations officer received sufficient copies of the questionnaire, answer sheets, and envelopes for all personnel. Each respondent was asked to place the completed survey in the provided envelope, seal it, and return it to the operations officer, who collected all the surveys and returned them to the researcher.

Of the 245 subordinate surveys, 214 were returned, for a total return rate of 87.35 percent. Eight of those returned were unuseable. Of the 31 remaining surveys, the majority were unreturned because the respondent was no longer assigned or on extended absence for school, etc.

All 35 commander surveys were returned. However, one was not completed. MM_L , LSA_{ex} , LSA_c and LSA_{ec} for this

particular organization (29) was calculated by substituting the mean value for those scores of squadrons ranked in the same quartile based on Prod.

Once the raw data was entered into the Statistical Package for the Social Sciences (SPSS) computer program, two primary statistical analyses were performed.

The first was a bivariate correlation to summarize the relationship between each of the variables. Using the Pearson Product Moment Correlation, r , a correlation coefficient was used to indicate the degree to which variation in one variable was related to variation in another. Not only did this correlation summarize the strength of the association between the pairs of variables, but also provided an easy means for comparing the strength of the relationship between one pair of variables and different pairs.

For a simplistic definition, if the value of r is close to zero, it can be assumed that there is little or no linear relationship between the two variables. If the values of r approached $+1.0$ or -1.0 , there is likely a strong linear relationship. A more positive r indicates a direct relationship, where a more negative r indicates an inverse relationship, that is, as one variable becomes larger, the other becomes smaller.

Where the strength of the relationship was more important than the direction of the relationship, r^2 , was used, measuring the proportion of variance in one variable

"explained" by the other. This variance is the measure of the variability, or lack of homogeneity, in a variable. When the cases cluster close to the mean, variance will be small; as the cases become more spread out, variance increases. The objective of this correlation analysis was to determine the extent to which variation in one variable was linked to variation in another.

On the other hand, the second set of procedures was designed to analyze the relationship between the dependent variable, Prod, and all other independent variables.

As a descriptive tool, the most important use of this technique is to find the best linear prediction equation and evaluate its prediction accuracy, to control for other confounding factors in order to evaluate the contribution of a specific variable or set of variables, and to find structural relations and provide explanations for a seemingly complex multivariate relationship.

It is through this multiple regression analysis that the null hypothesis will be tested, that is, for example, there is no linear relationship between Prod and all the independent variables.

Since the hypotheses indicate that the strength of the independent variables increases productivity, the program was so designed to evaluate the hypotheses based on quartile observations.

Since each squadron consisted of only one commander, the degrees of freedom within each squadron was only 1, eliminating any statistical tests for evaluation. By using quartile data ranked by the particular independent variable being analyzed, there existed either seven or eight degrees of freedom, allowing for the computation of r and other statistics. This manipulation will be further discussed later.

One final note before reporting the results. In the majority of cases, standardized, or Z scores, are used. By using Z scores, the various scales, which all have different value ranges (for example, the Miner Sentence Completion Scale ranges from -35 to +35, while the Organizational Characteristics scale ranges from one to four) are equalized, making the mean of each scale zero and the standard deviation one.

When Z scores are used, the variable will be preceded by a Z , e.g., ZMM_L . The use of standardized scores allows for easy comparison of dissimilar scales.

One final comment is appropriate before reporting the results. The population from which the sample is chosen is obviously limited in size. Throughout the literature on statistical analysis, it is accepted that larger sample sizes in multivariate procedures provide better results and a substantial decrease in the probability of error.

However, since economies of data collection and the availability of appropriate samples for measurement dictate certain limitations, intuitive judgments must be utilized based on the knowledge of the data. By collecting a large quantity of in-depth information, as is being done in this study, some ad hoc interpretations of the measures of central tendency, for example, can still provide revealing information.

CHAPTER VI

FINDINGS, ANALYSIS AND DISCUSSION

The first section of this chapter reports basic information generated by the surveys. Although there is no intent in this research to analyze data by unit or by individual variable, some general observations will be made to provide a broad perspective of the population surveyed. These observations will also serve to indicate implications for future research.

The second section will analyze the findings relevant to the hypotheses formulated in chapter one and provide a general discussion of the results.

General Findings

Demographics

As indicated in graph 1, of the 206 subordinate respondents (only 204 indicated sex), 20.6 percent were females and 79.4 percent were males, which very closely parallels the U.S. Air Force demographics.

Nearly 41 percent of the subordinates were between the ages of 36 and 40. Only one respondent was under 25, with each of the remaining ranges approximating 20 percent each. Only 17 percent have been on active duty for less

than 5 years while more than 31 percent had been on active duty between 6-10 years.

Appendix A depicts a by-unit frequency analysis of subordinate supervisor demographics.

Of the 35 commanders, 34 were male. They averaged 17.9 years of total active duty time, ranging from 12.5 to 32 years. The overall average for time as the commander of the current squadron was 1.23 years, although some had previous recruiting squadron commander experience. The range for time as commander was from 4 months to 33 months.

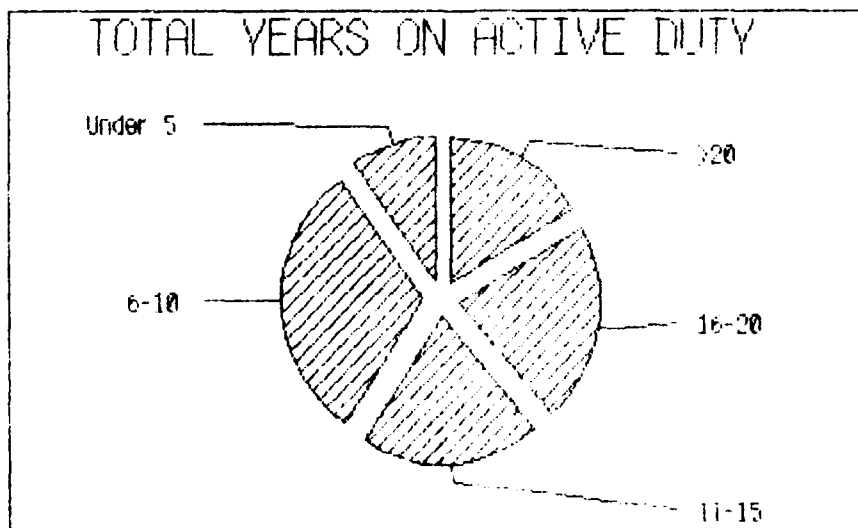
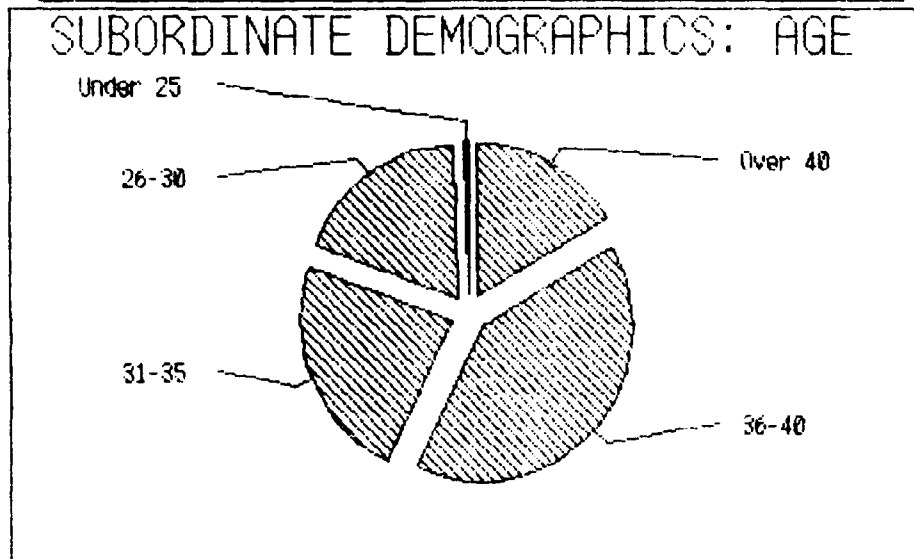
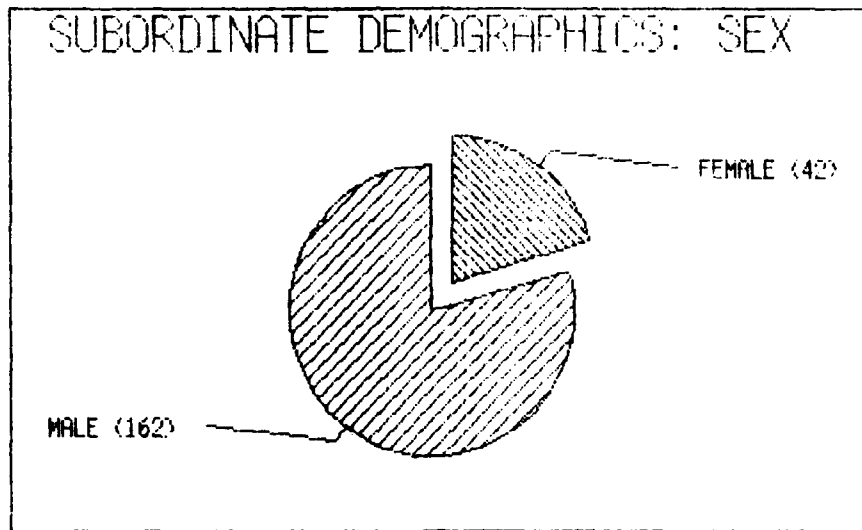
Graph 2 gives a representation of time in service and time as commander by squadron.

It is important to note that each commander is handpicked for the position. All performance records are reviewed and the Recruiting Service (USAFRS) commander personally interviews and determines whether the individual will be selected and, based on personality and other characteristics, is assigned to a squadron that might best suit the talents, background, etc, of the individual.

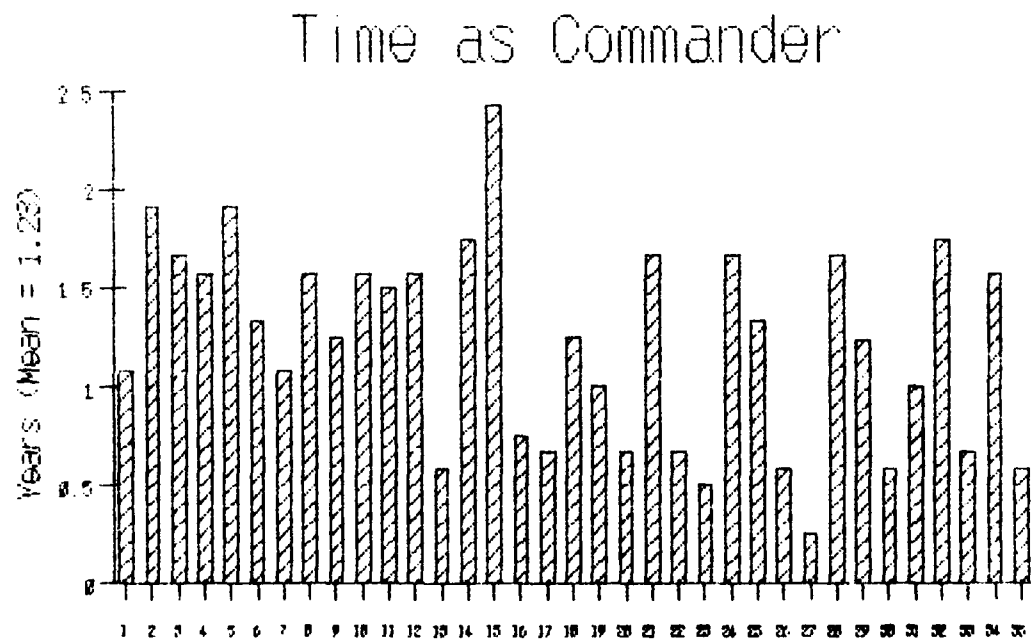
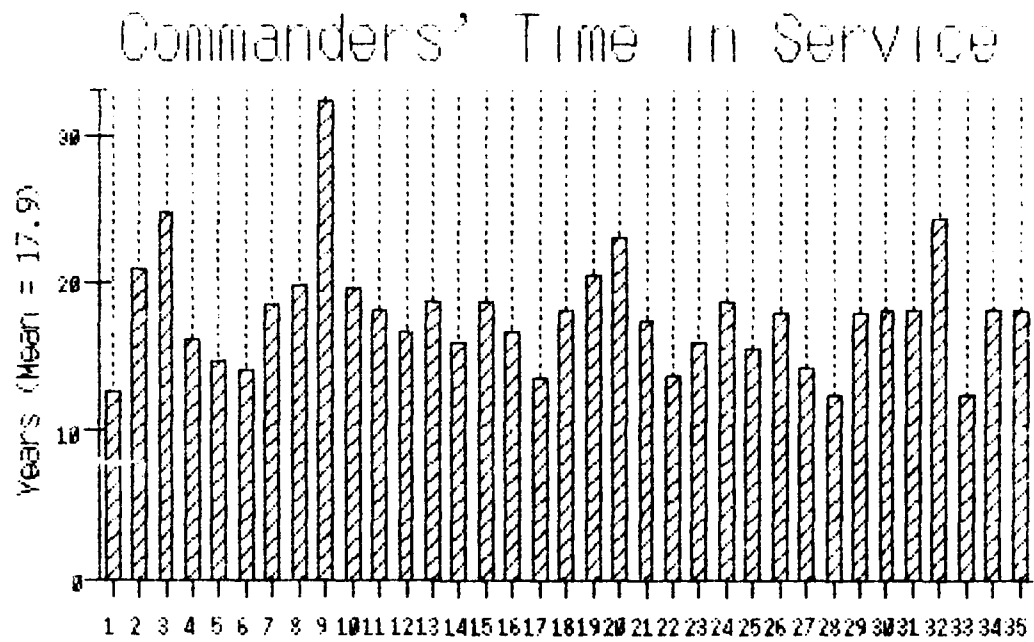
Promotion rates among USAFRS squadron commanders are significantly higher than USAF averages, indicating that the quality of the individual assigned exceeds the general quality of Air Force officers of equal rank.

Approximately 50 percent of the commanders turn over annually, as the tenure routinely averages two years.

Graph 1. Subordinate Demographics.



Graph 2. Commanders' Tenure.



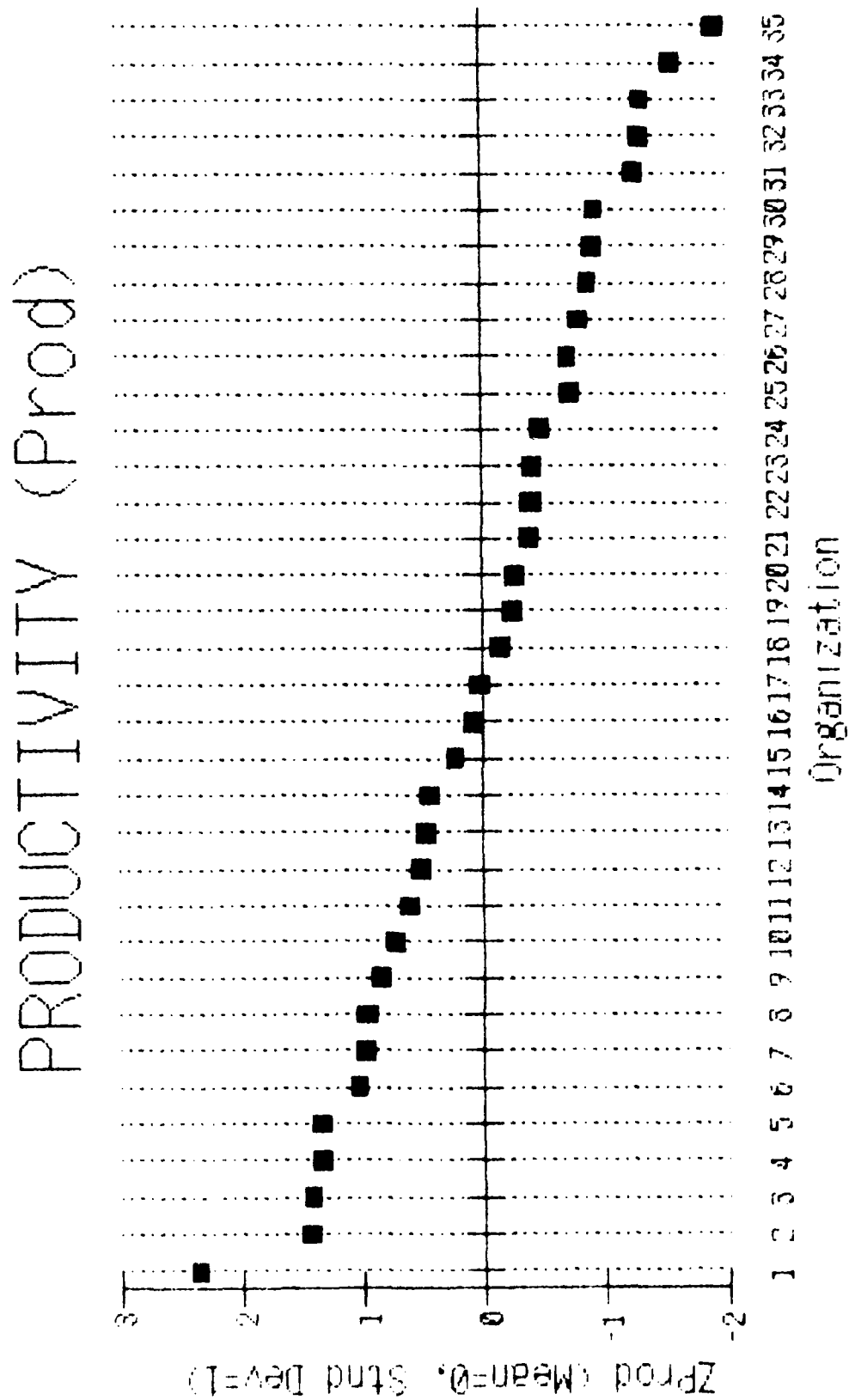
Productivity

Graph 3 shows the relative rankings of the 35 squadrons. This information is based on the 16 months of performance immediately preceding the administration of the survey. Although fourteen of the commanders were not in place during the entire sixteen months, only three (13, 23, and 27), were in place less than half the time. The assumption is made that there is sufficient time in position for the commander to have affect on the measured variables.

Using raw scores, productivity (Prod) ranges from a high of 137.1 to a low of 64.3. The overall raw mean equalled 96.16. Z scores range from 2.35 above the mean to 1.94 below the mean. (It should be noted that the raw values do not equate to percentages. They are a calculation based on a combination of the 14 recruiting programs using the goal allocation and competition systems detailed in the previous chapter. These rankings from 1 to 35 do not necessarily correspond directly to standings in the overall Recruiting Service competition system.)

Graph 3 is the general orientation for the majority of the graphs in this section. "1" is the squadron with ZProd equal to 2.35, or the highest productivity, while "35" equals -1.94. As each variable is plotted, the same identifiers will be used consistently on the X axis, helping to frame a general reference for that variable's affect on productivity.

Graph 3. Standard (Z) Scores of Productivity (PROD) from highest to lowest.



Organizational Characteristics

Organizational characteristics (OC) was previously identified as a scale ranging from 1 (highly autocratic) to 4 (highly democratic) based on Likert's System 4. Using the Profile of Organization Characteristics, each subordinate rated their particular squadron and the squadron's profile was calculated as the mean of the scores of the subordinates.

Appendix B lists the specific OC scores for each squadron and also the means based on Prod quartiles. Graph 4 shows the raw scores and the quartile means (1-9; 10-18; 19-27; and 28-35). The overall mean is 3.02, indicating a very highly democratic environment.

It is evident from the graph that although there are major fluctuations in the ranges (especially in the first quartile), there is a definite trend towards a less democratic environment as productivity declines. The quartile means drop consistently from 3.14 to 2.92.

As an observation, the highest rated OC squadron (3) is currently commanded by the second most senior officer who is also among the top three most experienced commanders. This particular squadron has a recent history of continued successes.

Conversely, the two most autocratic squadrons (22 and 33) are commanded by the more junior commanders both in terms of time in service and time as commander. The

commander in 33 inherited a failing squadron with a new staff, to include a new superintendent, the senior non-commissioned officer in charge of production.

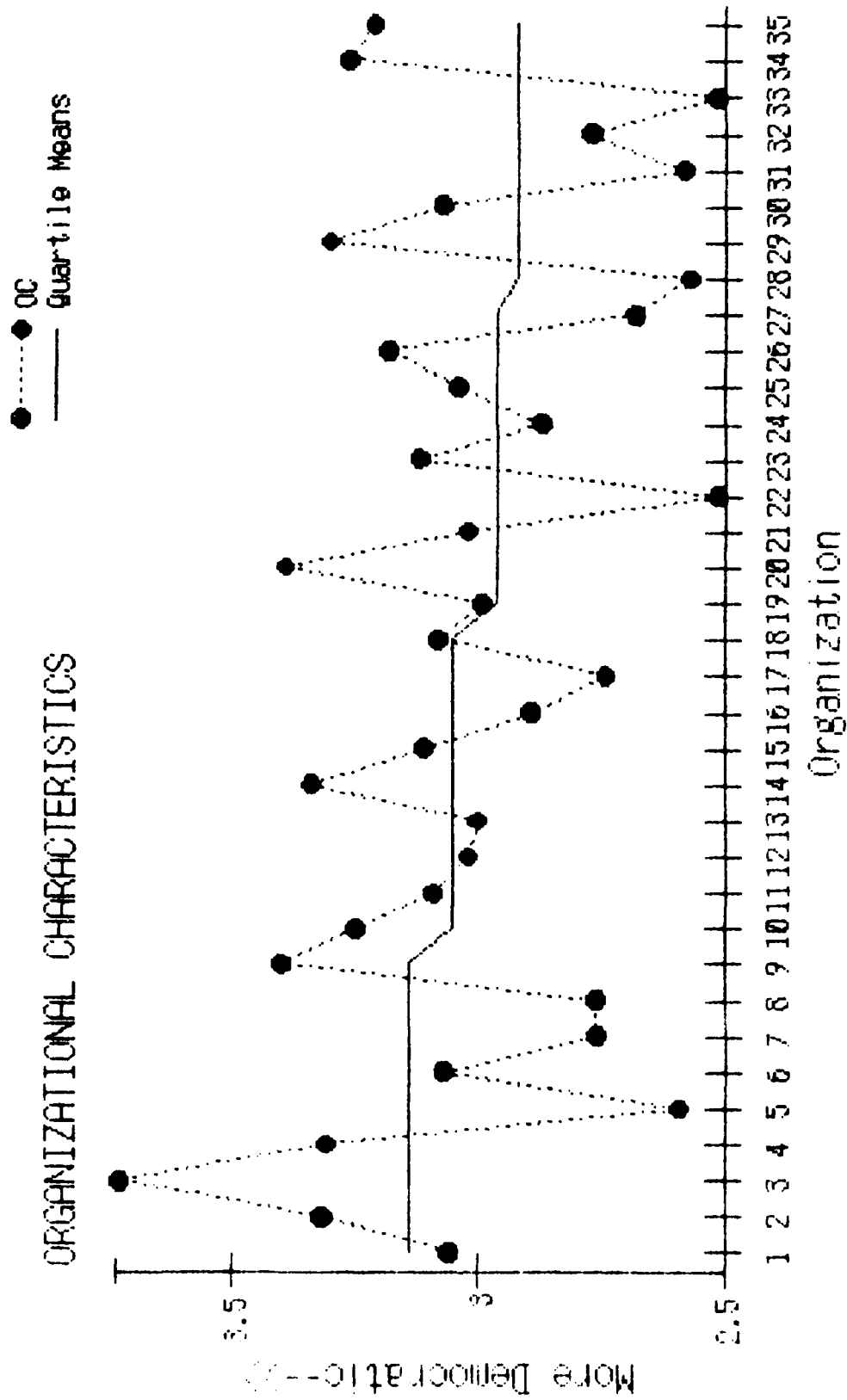
Although it is beyond the scope of this research to correlate commander demographics such as tenure with productivity, further studies might consider such analyses.

Leadership Style

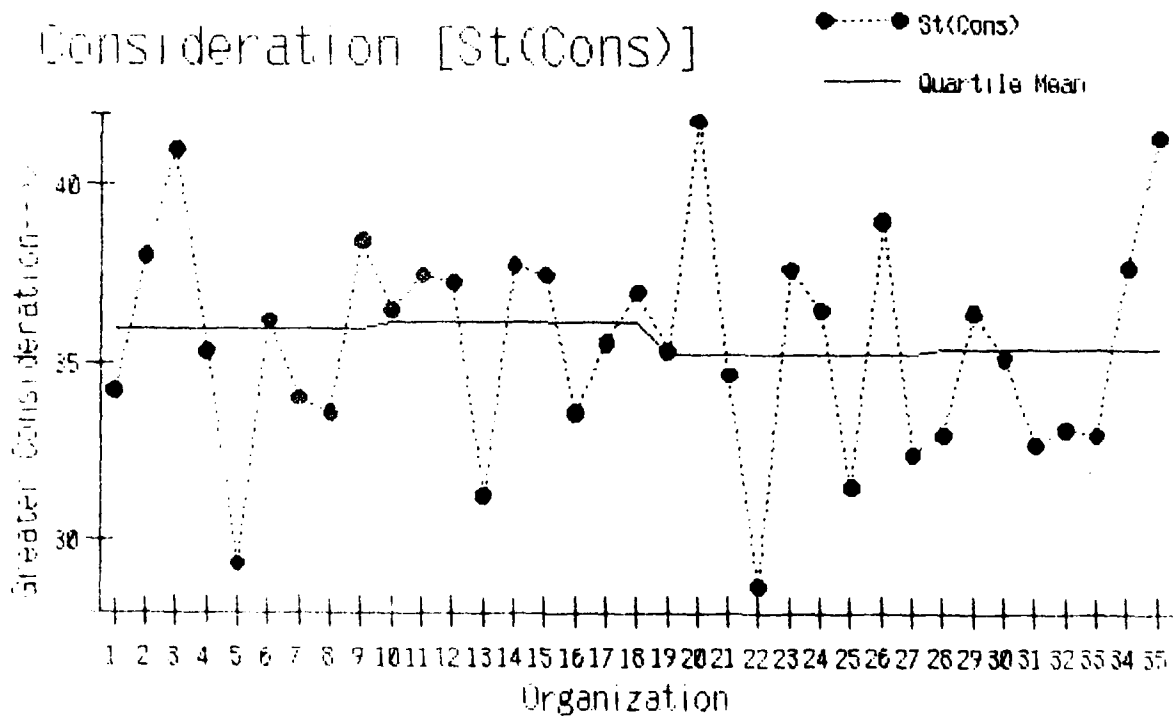
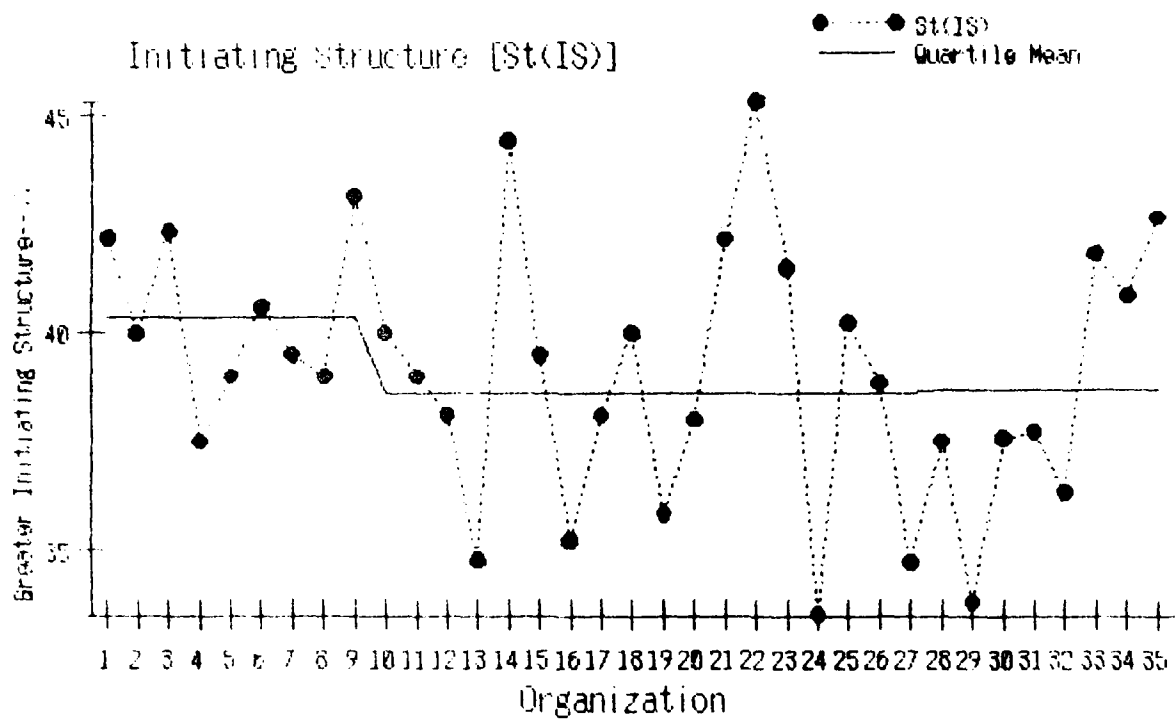
Leadership style was also measured as a perception by the subordinates of the commander. Two values are plotted. The first, initiating structure (St_{is}), determines the amount of task orientation of the commander. The second, consideration (St_{cons}), measures the level of relationship orientation of the commander. Twenty questions (ten for each variable, valued from zero to five) give a range up to 50 for each. The overall mean for St_{is} was 39.08 and for St_{cons} was 35.66. Graph 5 indicates the raw scores and the quartile means. Appendix B lists the exact scores.

With only four exceptions (20, 24, 26, and 29), every commander displayed greater St_{is} than St_{cons} behaviors. Graph 6 shows the difference (St_{is} minus St_{cons}) in the values. For example, squadron 22 had the highest St_{is} score and the lowest St_{cons} score, for a difference of 16.62. (Squadron 22 also ranked as the most autocratic squadron.) The mean difference is four.

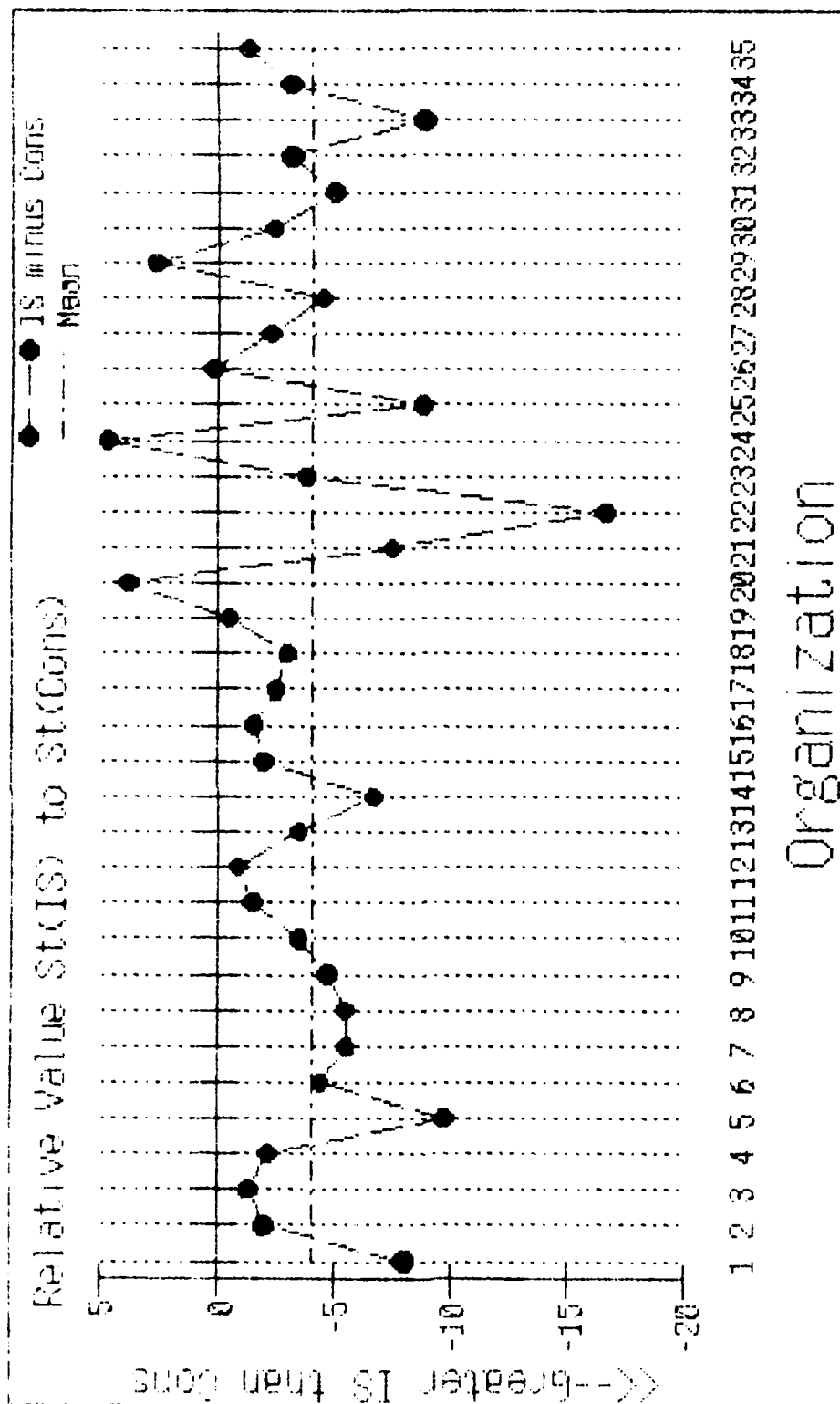
Graph 4. Likert's Profile of Organizational Characteristics (Autocratic [1] to Democratic [4])



Graph 5. Leadership Style (St), Task Orientation and Interpersonal Relations Orientation.



Graph 6. Degree to which the leader emphasizes consideration behaviors more than initiating structure behaviors.



Leaders' Personal Qualities (Self-Reports)

Each commander was asked 25 questions to determine an assessment of their own self-esteem, competence, and self-confidence. Graph 7 shows the Z scores of each of the three variables.

Generally, the highest scores were in the self-esteem appraisal. Seventeen of the 35 commanders rated themselves at the maximum end of the scale, or 40. The lowest recorded score was 33 (by squadron 33), -1.76 below the mean. The overall mean was 38.15.

Quartile means declined with production (raw means of 39.11, 38, 37.89, and 37.43). Six of the nine top ranked squadrons had squadron commanders rating themselves at 40. Four of the bottom squadrons were rated 40, but also had three with very low scores.

The most variance was detected in the self-confidence measure. With a maximum possible score of 35, only four commanders rated themselves at 35. (These same four, 2, 5, 10, and 23 also rated themselves as 40 on the self-esteem scale.) The mean was 30.68. Again, there is a slight drop in quartile means as productivity decreases.

The final measure, competence, had the overall lowest scores. With a possible maximum score of 32 and a mean of 27, only one commander (34) indicated the maximum. (This same commander also had the highest scores on the

other two variables.) One commander (35) rated himself nearly two and one half standard deviations below the mean. This commander had a low esteem score and the lowest self-confidence score.

Leaders' Personal Qualities (Subordinate Perceived)

As suggested in Chapter I, in a leadership transaction, it is essential to ascertain not only the qualities of leadership within the leader, but how those qualities are perceived by the followers--because leadership is a two-way activity.

Each of the subordinates was asked to rate their commanders using the same scales (slightly modified) the commander used to rate themselves. The unit score was the mean value of all the subordinate responses. As might be expected, the overall subordinate appraisals were lower than the leader self-reports.

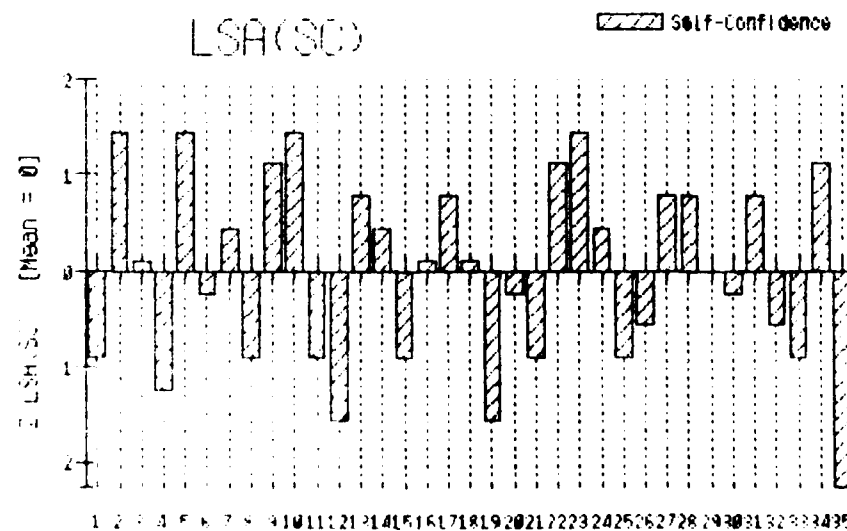
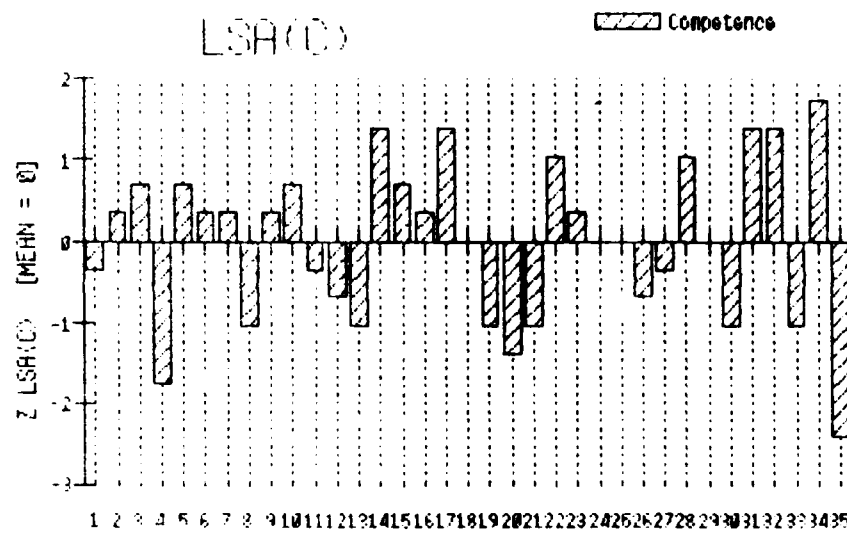
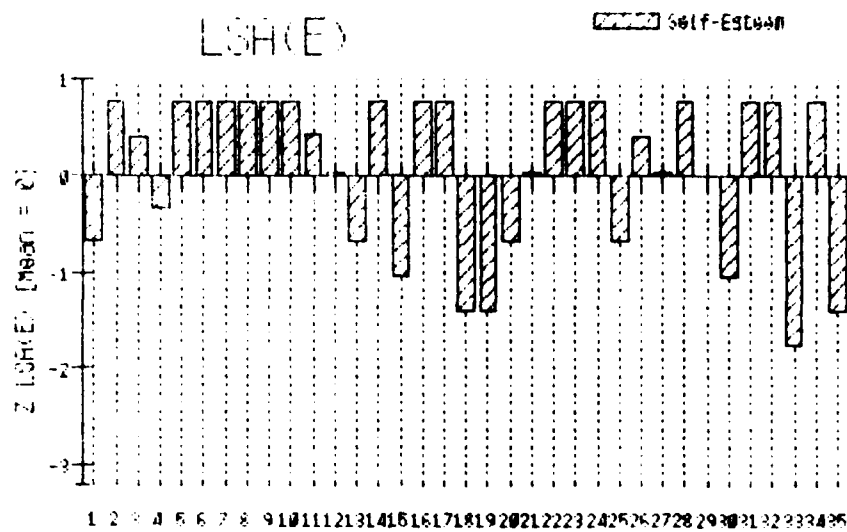
While the leader's self-report of self-esteem averaged 38.15, the subordinate assessment was 35.93. For competence, the leaders' mean score was 27 and the subordinates' appraisal was 25.85. And for self-confidence the scores were 30.68 and 27.37 respectively. Graph 8 shows the Z scores for each variable. Graphs 9, 10, and 11 make side by side comparisons of the Z scores for each of the variables.

There are some significant discrepancies that could be explored in further research. For example, the squadron 1 commander consistently rated himself below the mean, while the subordinates consistently rated him above the mean. The same is even more apparent in squadron 35. Subordinates in this squadron rated the commander significantly above the mean in all cases while the commander rated himself significantly below the mean. (For squadron 35, $ZLSA_{ee} = -1.89$; $ZLSA_c = -2.42$; and $ZLSA_{ec} = -2.25$.)

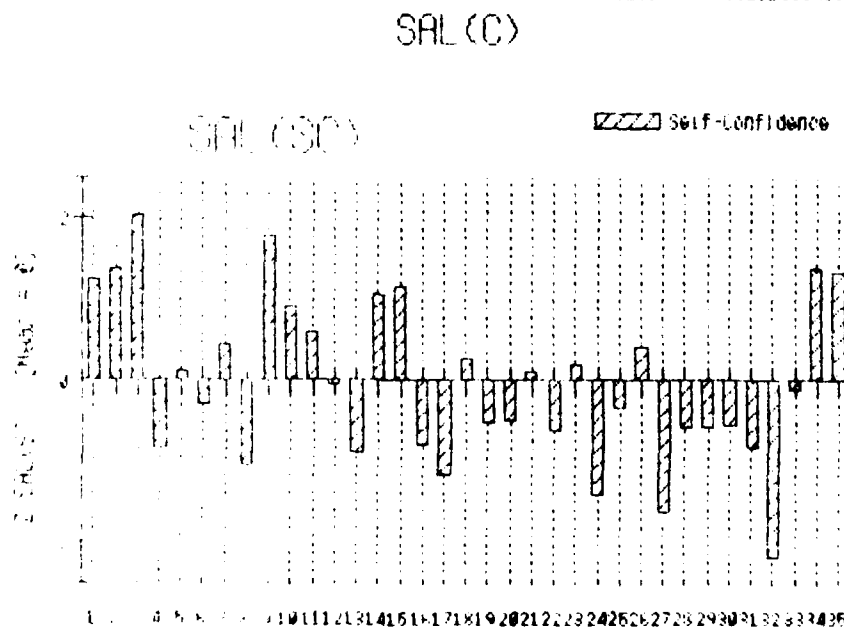
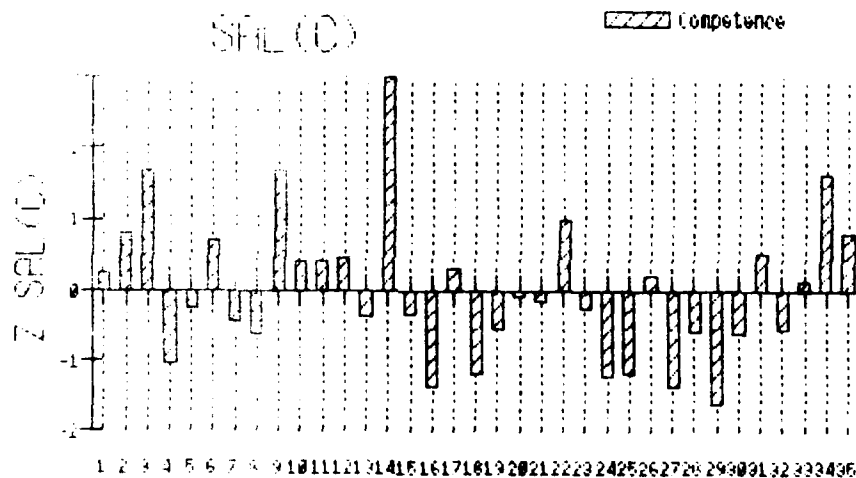
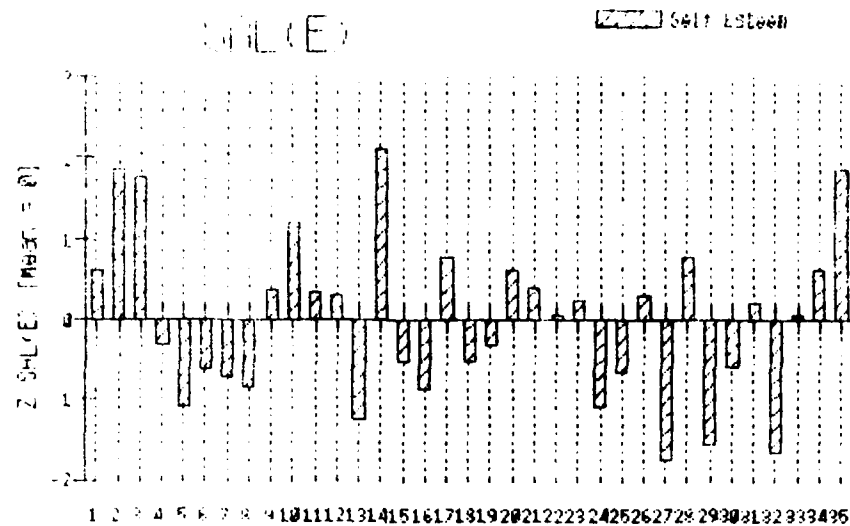
Appendix C lists the raw scores and quartile means for all six LPQ variables.

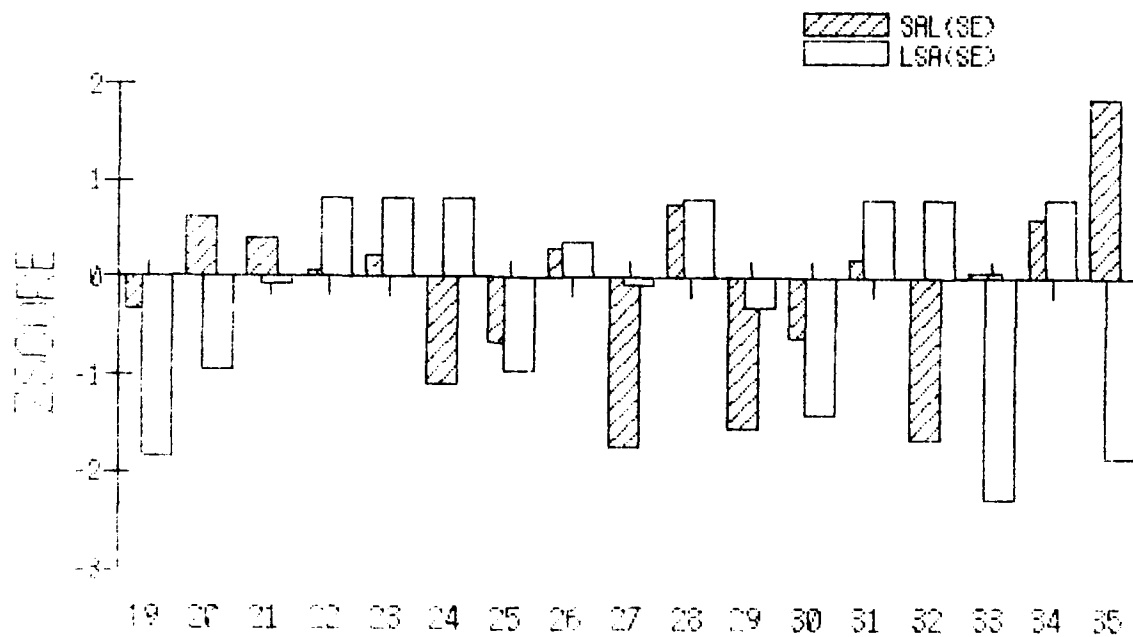
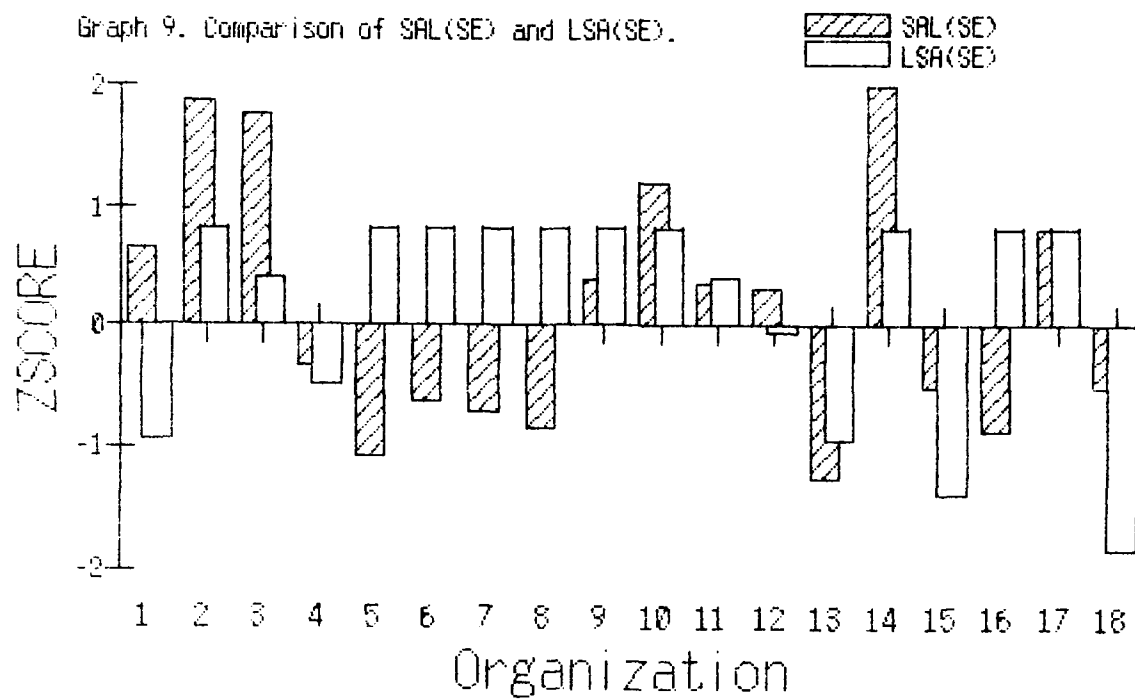
Graph 12 portrays the quartile means for each of the six rated variables. (There is no numerical relationship on this chart between variables. There is a statistical relationship between quartiles only. The intent of this graph is to show the direction of the LPQ variables with reference to Prod.) In an assessment of a leaders' personal qualities on the performance of an organization, one can see general downward trends from the first quartile to the last quartile.

Graph 7. Leaders' Personal Qualities in Standard Scores.

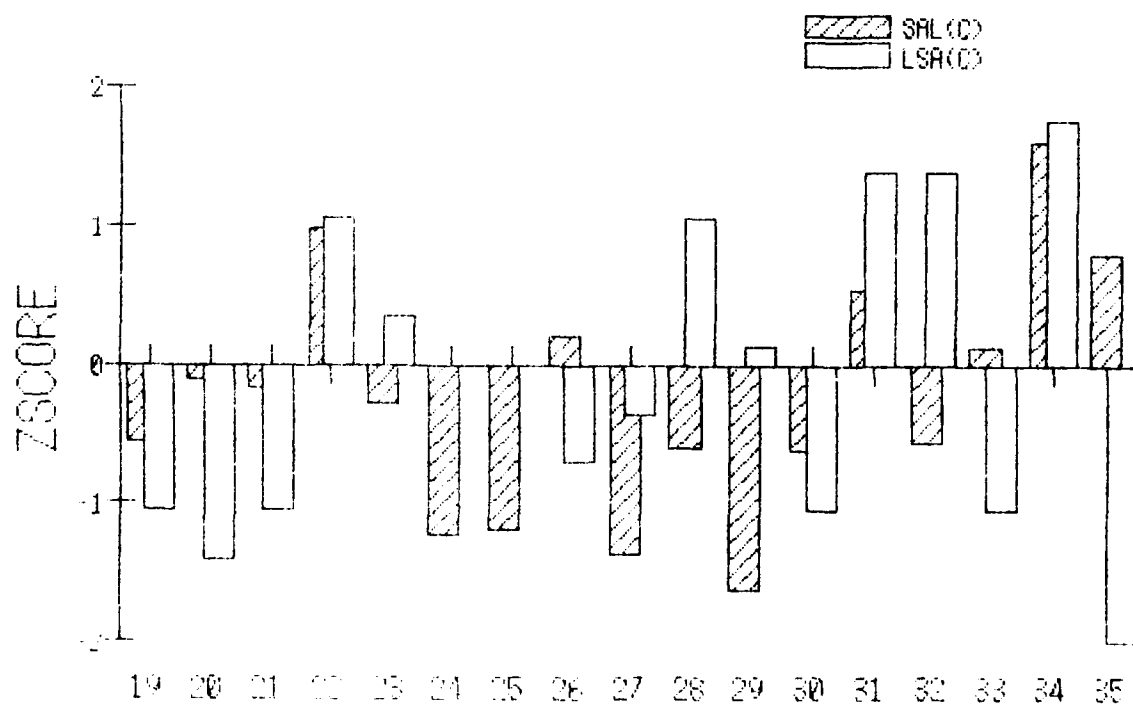
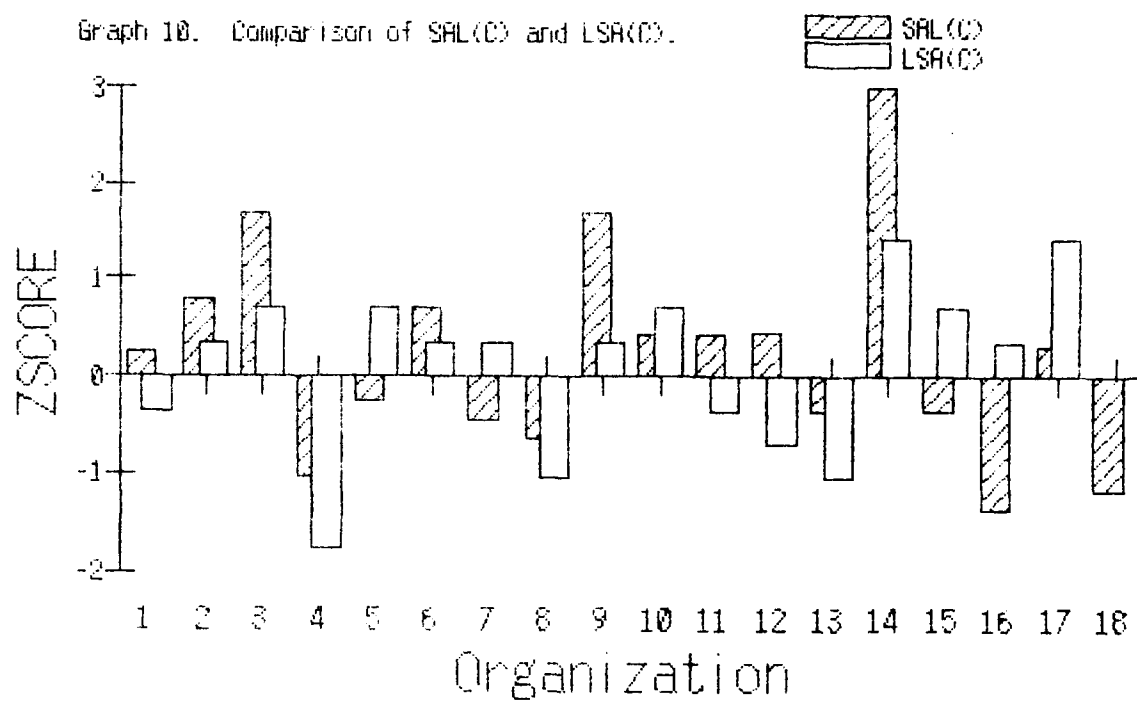


Graph 8. Subordinate's Appraisal of the Leader's Personal Qualities in Standard Scores.

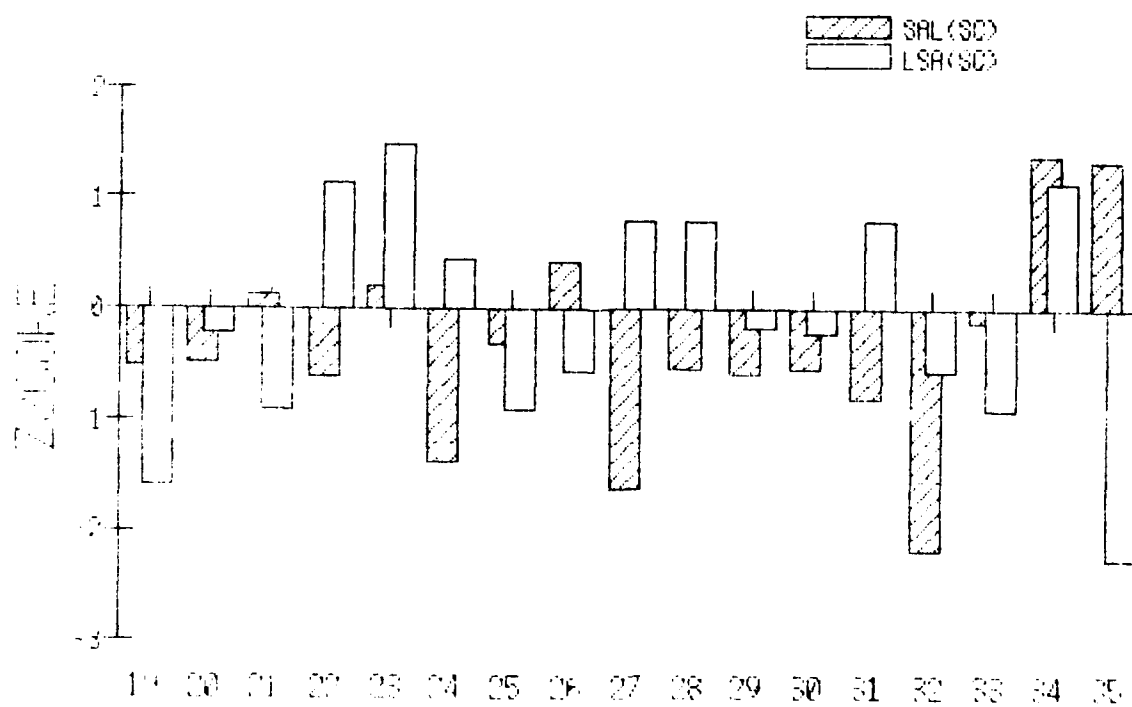
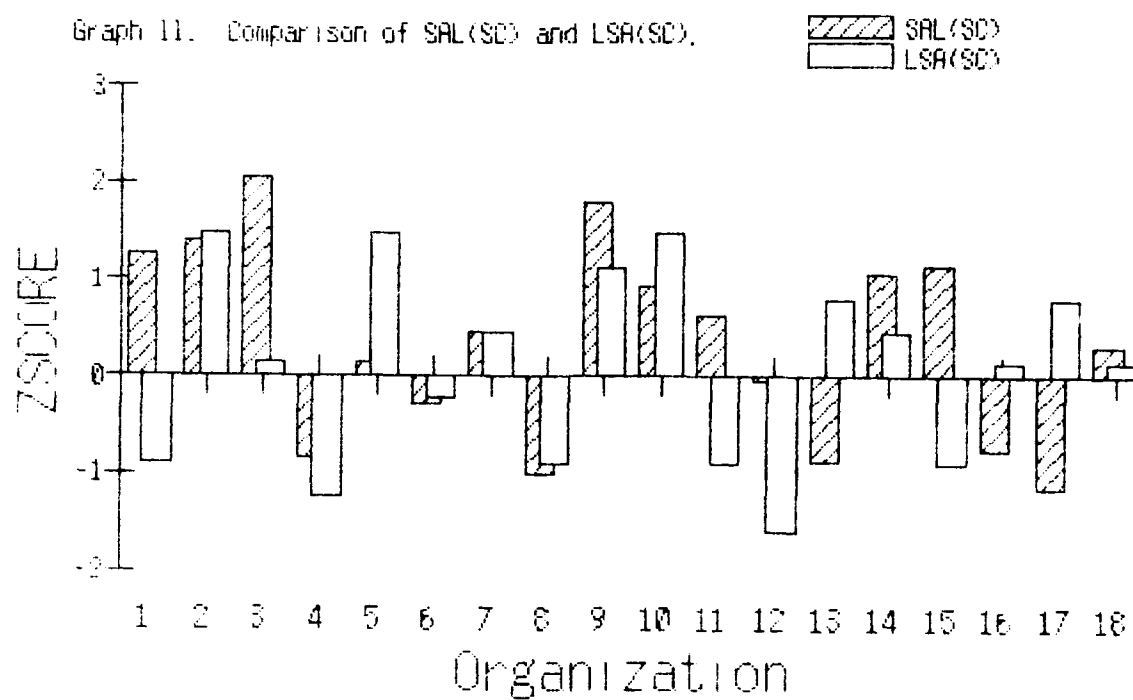




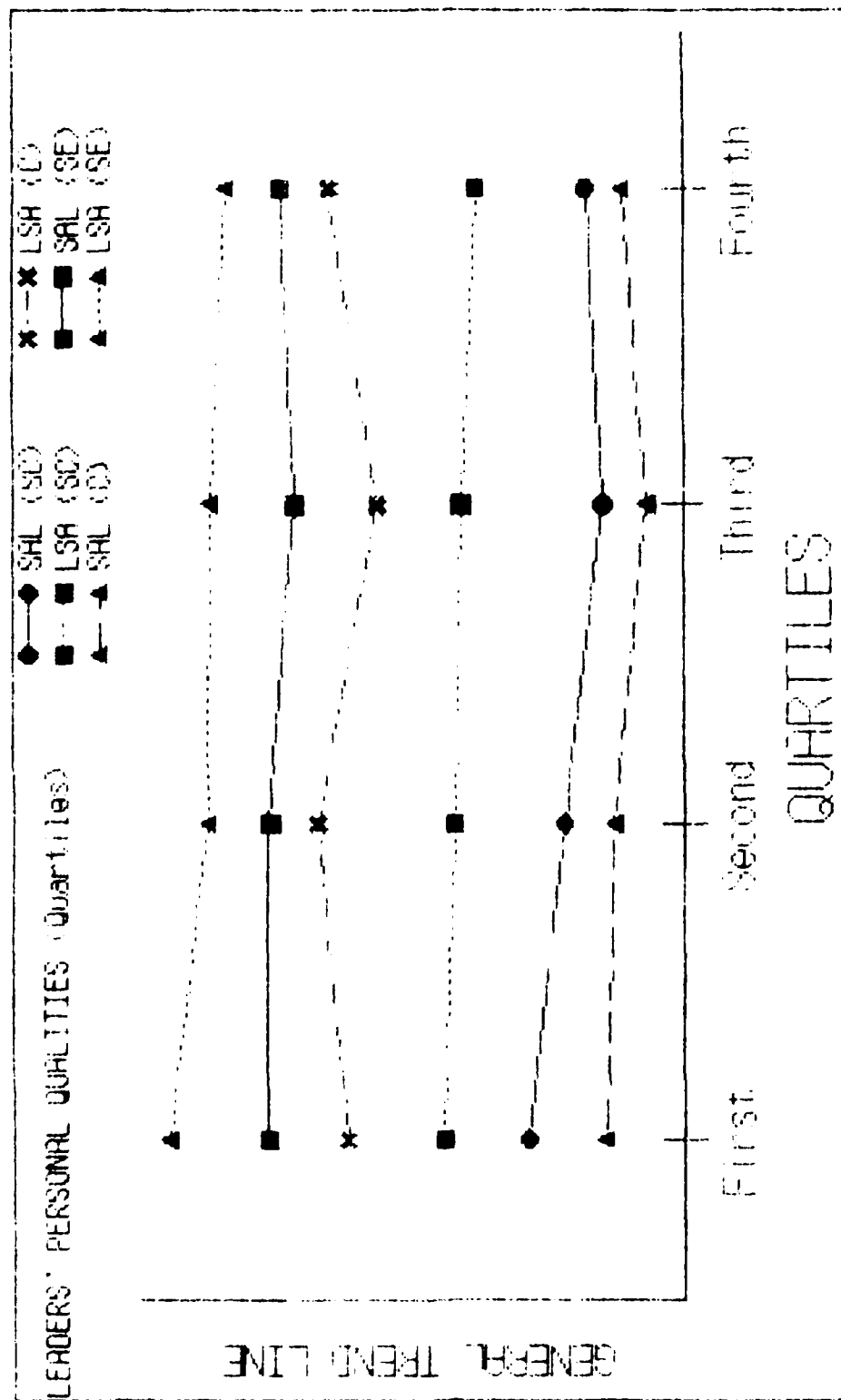
Graph 10. Comparison of SAL(C) and LSA(C).



Graph 11. Comparison of SAL(SC) and LSA(SC).



Graph 12. Relative trends of leader's Personal Qualities using productivity quartiles.



Locus of Control

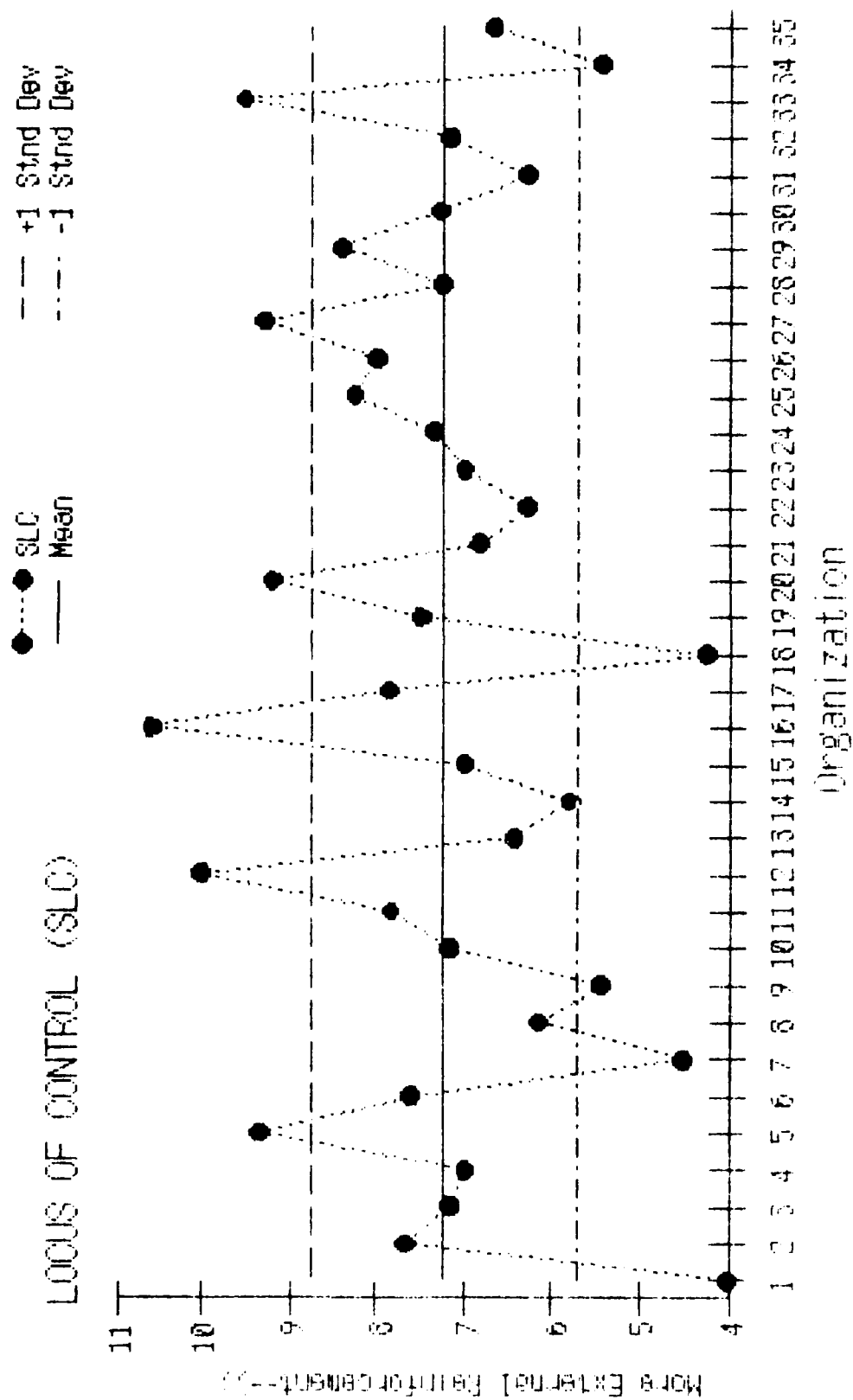
Locus of control refers to the ability of the individual to self-motivate and self-reward. Specifically it determines whether an individual requires external reinforcement or can intrinsically reinforce and motivate themselves based on the assessment of their own performance.

The scale used consisted of 20 questions. A higher score (maximum score is 20) indicates a greater need for external reinforcement. The means of the squadrons ranged from 10.6 (16) to a low of 4.0 (1). The overall mean of the squadrons was 7.2.

Graph 13 indicates the means of each of the squadrons. There appears to be greater variance in quadrants one and two and less in three and four. Because of this variance, the means increase as productivity decreases. (Quartiles 1-4 means equal 6.36, 7.52, 7.7, and 7.17 respectively.) This might indicate that as less recognition is achieved because of lower productivity, there exist a greater need for external reinforcement. There is less satisfaction in individual performance when organizational performance is failing.

(Note: Squadron 5 appears as an anomaly in quadrant 1. There were only three respondents, which might suggest a higher deviation from the mean.)

Graph 13. Subordinate's level of external/internal locus of reinforcement.



Motivation to Manage

The final variables are MM_L and MM_S , from which is determined the predisposition toward Miner's six role prescriptions. But more specifically, it evaluates the positive or negative regard with which the individual accomplishes his or her job as a leader or as a manager.

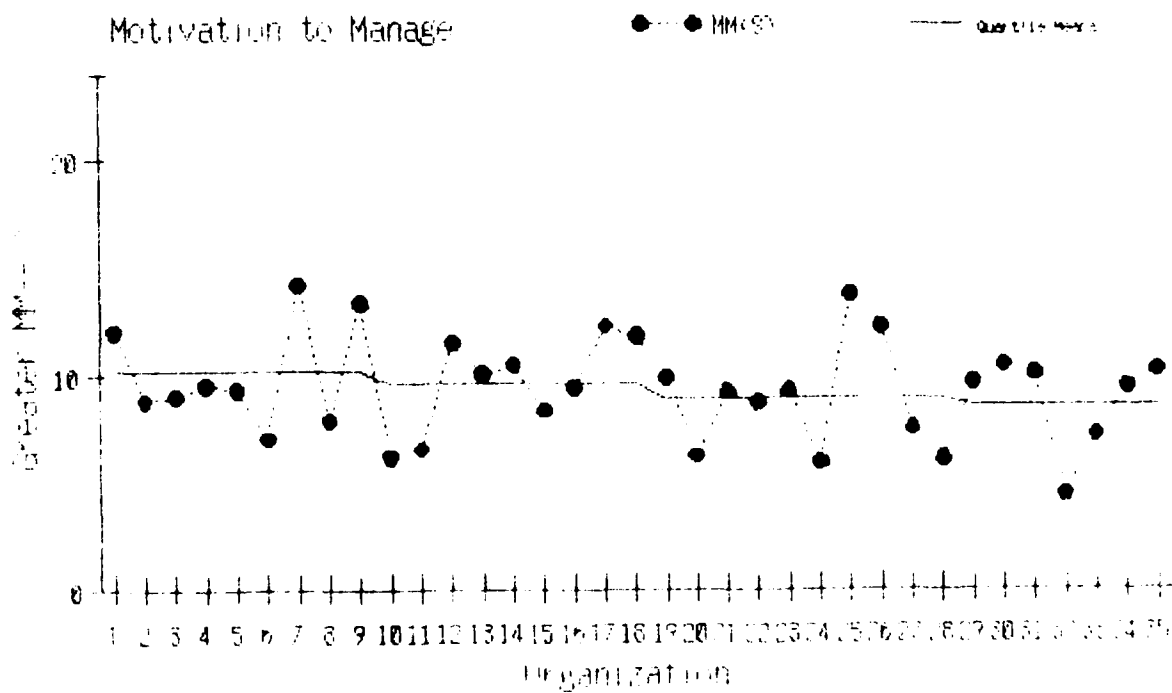
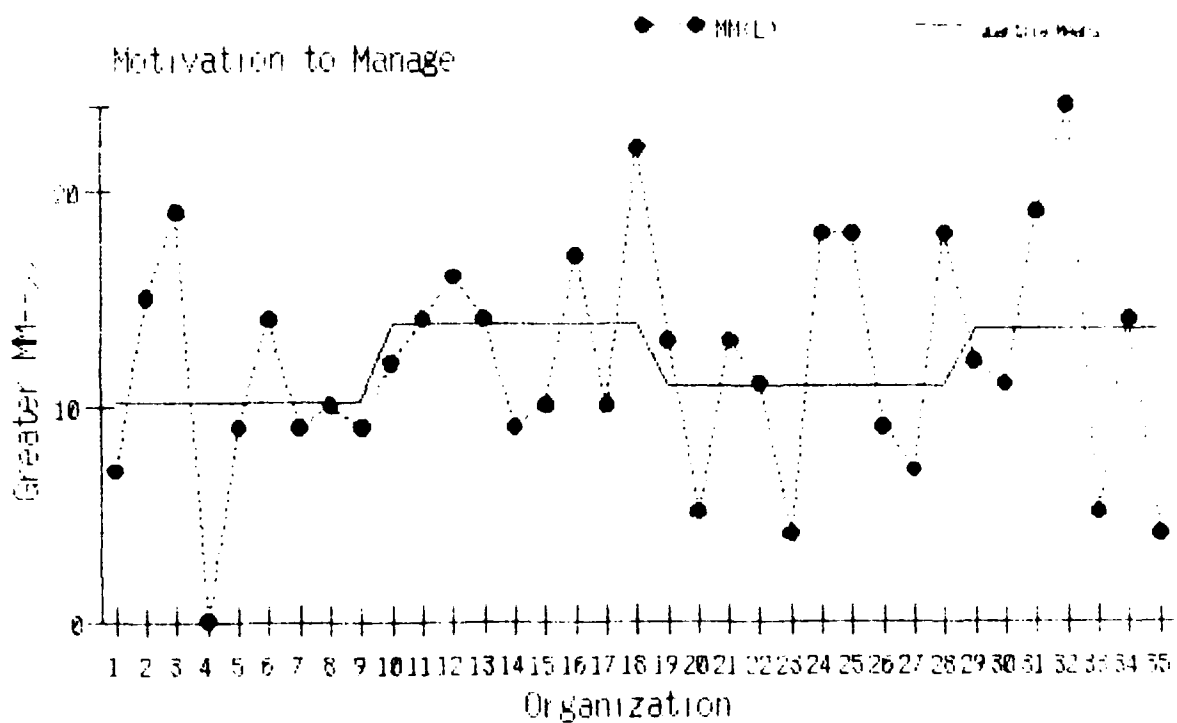
Scores can range from -35 to +35. The overall mean for commanders was 12.03 and for subordinates was 9.3. Graph 14 compares MM_L and MM_S and indicates the quartile means. Appendix D list exact scores.

Even considering the fact that $n = 1$ for MM_L and $n = 5$ thru 7 for MM_S , it can be seen that there is a much greater variance in MM_L , ranging from 24 to 0, while MM_S ranges only from 14.17 to 4.33. There is no discernable trend in MM_L against Prod while there is a consistent decline from 10.16 to 8.56 in MM_S .

Note that squadron 3, high on both OC and Stcons, ranks high on MM_L , indicating that there may be a relationship between an individual's attitude toward their job as leader/manager and the environment they create. Also note that squadron 35, a consistently low rated squadron for LSA, is low in MM_L .

The correlations between these two variables serves as the basis for the following discussion on the hypotheses put forward in chapter one.

Graph 14. Leader and subordinate Motivation to Manage and quartile means.



Analysis and Discussion

This section reports the general statistical analysis of the collected data. The first part rank orders each of the variables in quartiles based on the means of the ranking variable, from highest to lowest. Then, the quartile means of each of the other variables is calculated to assess trends which may be dependent upon the original variable quartile ranking.

For example, the top nine ranked squadrons based on organizational characteristics (OC), table 1, comprise quartile 1. Means of each of the other variables is calculated based on those same nine squadrons, providing a trend analysis of each variable within the quartiles grouped by the "ranking" variables, in this example, OC.

When significant, values of r , the correlation between two variables, are provided.

Subsection two briefly discusses a multiple regression analysis in an attempt to define an equation that can best predict the dependent variable, Prod.

Measures of Central Tendency and Correlation Analyses

Organizational Characteristics (OC)

The most influential variable in this model is the degree to which the organization is more democratic.

Recalling Likert's thesis, he said that if an organization moved away from the autocratic to the democratic, productivity and employee satisfaction would increase.

A more democratic organization is characterized by greater confidence, trust and supportive behavior. Democratic environments facilitate cooperative goal achievement and enhance personal growth and development. It is the most subordinate-oriented organization. Even as far back as the Hawthorne studies, it was noted that those organizations providing high levels of esteem and self-actualization on the job were seen as most productive because employees felt a sense of worth.

This research replicates the findings of the many studies which suggest higher productivity in more democratic organizations. As was seen in graph 4, there is a very notable decline from a more to a less democratic organization as productivity decreases.

In table 1, OC measures the spectrum of democratic (4) to exploitive autocratic (1), based on Likert's System 4 theory. The range in this sample is from 3.36 to 2.67 in quartiles, with an overall mean of 3.02.

As anticipated, the amount of consideration behavior (Stcone) drops dramatically as organizations become less democratic. The amount of initiating structure behavior only drops slightly. The difference in the means between

the two leadership styles is greater in more autocratic organizations, quartile 4, indicating there is more balance in leadership styles in more democratic organizations.

TABLE 1

Organizational Characteristics (OC)
Ranked in Quartiles by OC

VARIABLE	Overall	Quartile 1	Quartile 2	Quartile 3	Quartile 4
LSA _{SEC}	30.68	32.25	27.08	30.89	31.56
LSA _{SEE}	38.15	39.00	37.12	37.44	39.00
LSA _C	27.00	27.75	25.62	26.33	28.22
MM _L	12.03	10.38	11.12	14.00	12.32
MM _S	9.30	9.26	9.57	9.58	8.84
St _{IS}	39.08	40.15	40.60	37.70	38.11
St _{CONS}	35.66	38.08	36.82	34.69	33.23
SAL _{EC}	27.37	29.11	28.60	26.38	25.62
SAL _C	25.95	27.14	26.00	25.09	25.25
SAL _{SE}	35.92	37.22	36.36	35.13	35.08
SLC	7.20	6.92	7.04	7.42	7.34
OC	3.02	3.36	3.10	2.94	2.67

There is also an increase in the apparent required amount of subordinate external reinforcement as the organization becomes less democratic. This trend is probably a result of fewer available rewards in less democratic organizations. The absence of recognition and reinforcement serve to highlight the need in those individuals requiring such reinforcement.

The subordinate's appraisal of the leader's self-confidence, self-esteem and competence decrease as the

organization becomes less democratic. There is no similar trend among the leader's own perceptions. In fact, in organizations ranked the most autocratic, leaders' perceive higher competence than in more democratic organizations. They also have equal levels of self-esteem.

Leaders in more democratic organizations tend to have less positive regard (MM_L) toward their leadership roles while those in more autocratic organizations have a stronger and more positive attitude. Considering Likert's definition of System 4, such results are not contrary. In a more democratic environment, the traditional leadership roles are more shared and more consultative. The leader's involvement is more facilitative, supportive and less directive.

The leader of a more democratic organization advances a "team" philosophy rather than a hierarchical or bureaucratic scheme. This suggests that a leader is less inclined to self-report in definite terms of specific leadership roles when self-perceived as less directive and more supportive.

It is validated that the nature of the organization, ranging from autocratic to democratic, has a major effect on productivity as the organization becomes more democratic. In fact, as will be seen in the section on regression analysis, OC is the primary variable influencing productivity. And there is, in fact, a closer relationship between MM_L and MM_e in quartile 1 than quartile 4.

confirming greater likelihood of modeling in more democratic organizations. The subordinate's perception of the leader's personal qualities parallels a decrease in OC.

Leadership Style (St)

Corresponding to a move from more democratic to more autocratic organizations, similar trends resulting from more task-oriented leadership styles would be expected. As Stogdill predicted, the difference in consideration and initiating structure behaviors on the part of the leader do produce different effects on the behavior of subordinates.

It is generally accepted today that no one leadership style works best in every situation. As Life Cycle theory proposes, there is a need for flexible, adaptable leadership behavior depending upon the subordinates and the situation.

This study shows that it is important for a leader to find an appropriate balance between task and relationship orientations. Stogdill's studies also indicated that the most effective leader concentrates primarily upon improving organizational function rather than emphasizing technical details.

The ratio of these two types of leadership behavior affects productivity. One would surmise that the ratio is determined by the context in which the leader must act, i.e., the situational, or contingency approach to

leadership. A commander must assess the situation he or she has either inherited or created and adapt their leadership style to the environment.

In table 2, the difference between the means of St_{18} and St_{CONS} drop from 6.64 in quartile 1 to .99 in quartile 4. This indicates that the slope of the decline in initiating structure is far greater than that of St_{CONS} .

Also, while St_{12} declines, SLC increases. Again, this suggests that greater external reinforcement is desired when the leader spends less time assigning tasks (for which recognition is more likely) and allows more freedom in individual work requirements.

TABLE 2

Leader's Initiating Structure Behavior (St₁₈)
Ranked in Quartiles by St₁₈

VARIABLE	Overall	Quartile 1	Quartile 2	Quartile 3	Quartile 4
LSA _{bc}	30.68	30.44	31.63	30.22	30.55
LSA _{be}	38.15	37.78	38.13	38.56	38.13
LSA _c	27.00	26.67	28.50	26.44	26.50
HML	12.03	9.00	14.25	11.44	13.88
HMS	9.30	9.86	9.63	9.73	8.00
St _{is} ----->>>>>>	39.08	42.83	40.09	38.34	35.19
St _{cons}	35.66	36.19	36.23	35.98	34.20
SAL _{bc}	27.37	29.00	28.91	26.64	25.15
SAL _c	25.85	27.29	26.09	25.88	24.12
SAL _{be}	35.92	37.33	36.20	36.00	34.21
SLE	7.20	6.55	6.45	7.82	7.86
DE	3.02	3.09	3.12	2.94	2.93

There is also a decline in MM_s and an increase in MM_L as St_{18} decreases. Contrary to what was seen in OC, as the amount of initiating structure behavior decreases (presumably more democratic), a leader appears more likely to accept a positive regard toward expected leadership roles. On the other hand, subordinates are less likely to accept those roles when the commander is less task oriented.

Subordinates perceive a decline in all of the leader's personal qualities (LPQ) as less St_{18} is experienced. Again, no similar trend is recorded by commanders. Commanders with more balanced St_{18} and St_{CONS} view themselves relatively equal to or greater in LPQ than those displaying greater St_{18} than St_{CONS} .

In table 3, St_{CONS} drops more than St_{18} . As the difference between the two means increases and St_{18} becomes more predominant, OC decreases toward a more autocracy.

Subordinate's also perceive a decline in the commander's personal qualities as consideration behaviors decline and St_{18} becomes more predominant. However, the leader's actually rate themselves at a higher competence and self-confidence level as they act less supportive.

There is a slight increase in the need for extrinsic subordinate motivation as consideration decreases. However, it is much less than the increase in SLC as St_{18} decreased in table 2. Such a trend may confirm that St_{18} is more relevant in a subordinate's determination of need for external reinforcement.

Leader's Consideration Behavior (St_{CONS})
Ranked in Quartiles by St_{CONS}

Fiedler contends that situational control is greatest where there is a trusted, respected leader interacting with a group that has like attitudes and background. Certain standard procedures (Style) would be in practice and the leader would have a high level of position power. Group effectiveness is contingent upon the relationship between the leadership style and the degree to which the group situation enables leader influence.

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Power is wielded through leadership style. It has already been established that position, or formal power is relatively equal across all 35 organizations. Therefore, personal power, the result of leader characteristics and traits, is the implied power variable. Although personal power was not measured, it can be partially inferred from the results.

Higher total St scores in the most productive squadrons indicate more leadership involvement. Corresponding higher LPQ scores are the results of stronger and more dominant leadership qualities. This suggests that commanders of more productive squadrons do, indeed, possess certain qualities that are attractive to the subordinates. Because of those qualities, leaders are able to exert more influence in their leadership roles.

For example, as discussed in previous chapters, charismatic-type leaders generally have greater personal power. Such leaders are more likely to have high self-confidence (LSA_{sc}), a strong conviction in their own beliefs and ideals, and a strong need to influence people (MM_L). This was validated.

Leadership style, then, is a significant factor in determining productivity. It is also strongly and positively correlated with OC. The r value for St_{is} with OC is .35 and with St_{cons} is .74.

Leader's Personal Qualities (LPQ)

One of the core concepts of the hypotheses is that high LPQ as both self-reported and subordinate-perceived increases productivity and motivation modeling.

As the means for each LSA variable decrease, so do the means of the other two. This correlation is obvious knowing that LSA variables are interactive. In fact, r values for the total sample are as follows: LSA_{ee} with LSA_c, $r = .65$; LSA_{ee} with LSA_{ec}, $r = .61$; and LSA_c with LSA_{ec}, $r = .66$.

The perception of the subordinates has a consistently similar although slower decline. These, too, correlate very closely, as follows: SAL_{ec} with SAL_{ee}, $r = .61$; SAL_{ec} with SAL_c, $r = .55$; and SAL_c with SAL_{ee}, $r = .65$.

Leader's Self-Confidence (LSA_{ec})

By examining the means of MM_L listed in table 4, as the means of LSA_{ec} decrease across quartiles, the sum of the first two MM_L quartiles is higher than quartiles 3 and 4. Higher self-confidence generates higher MM_L. (A similar statement can be made about MM_e, only to a lesser degree.) Such a low mean score in fourth quartile commanders implies that low self-confidence is precipitated by an uncomfortable inclination toward prescribed management roles.

Leader's Self-Reported Perception of
Self-Confidence (LSA_{SC}) Ranked in Quartiles by LSA_{SC}

No significant conclusions can be drawn from the other variables except to note that subordinate supervisors working for a commander with higher self-confidence are more intrinsically motivated. SLC and LSA_{ac} highly correlate, with $r = .43$.

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Leader's Self-Esteem (LSA_{EE})

In table 5, MM_L is spurious, especially considering that LSA_{EE} for the top two quartiles is 40 (maximum) in each. MM_L varies between the two by 3.19, which is a .58 standard deviation range. This suggests that there is no correlation between MM_L and LSA_{EE}. (Such is the case, as $r = .12$.)

Quartile 2 records the most autocratic environment, which, as discussed previously, leads to higher MM_L. This may explain the high MM_L rating. The leadership environment influences a commander's positive motivation toward prescribed roles more than self-esteem.

There is support for the thesis that says MM_L correlates greater with MM_E in leaders with greater self-esteem. The values of r across the four quartiles are .42, -.43, -.64, and .02, indicating a more positive correlation with higher esteem.

Commanders in the fourth quartile rate their self-esteem lower than what is actually perceived by the subordinates. (This is the only quadrant which experiences that phenomenon.) Also, as self-esteem decreases, there is less task orientation and greater consideration behavior, i.e., a more balanced leadership style.

**Leader's Self-Reported Perception
of Self-Esteem (LSA_{SE}) Ranked in Quartiles by LSA_{SE}**

Leader's Competence (LSA_C)

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TABLE 6

Leader's Self-Reported Perception
of Competence (LSA_C) Ranked in Quartiles by LSA_C

VARIABLE	Overall	Quartile 1	Quartile 2	Quartile 3	Quartile 4
LSA _{sc}	30.68	32.67	32.50	29.38	28.22
LSA _{se}	38.15	39.89	39.38	37.50	35.89
LSA _C	----->>>>>>27.00	30.44	28.25	26.12	23.22
MM _L	12.03	14.78	11.25	13.88	8.33
MM _s	9.30	8.98	9.68	9.65	8.98
St _{is}	39.08	40.20	40.09	37.80	38.73
St _{cons}	35.66	34.49	36.60	35.84	35.72
SAL _{sc}	27.37	27.17	28.83	27.07	26.68
SAL _C	25.85	27.24	26.07	25.11	25.29
SAL _{se}	35.92	36.69	36.19	35.38	35.71
SLC	7.20	6.79	7.00	7.60	7.33
DC	3.02	2.91	3.13	2.99	3.02

The overall correlation between MM_L and LSA_C is .47 with quartile correlations of .73, -.57, .13, and .86. This indicates there is a strong relationship between the two variables, especially at the extremes.

There is a slightly less democratic environment in higher LSA_C organizations. More initiating structure behavior than consideration in quartiles one and two suggests that when a leader feels more competent, he or she is more willing to orient toward tasks. Subordinates also appear to feel more comfortable in squadrons with more competent commanders because there is less need for extrinsic reinforcement.

Subordinate's Perception of
Leader's Self-Confidence (SAL_{ec})

Subordinates perceive less self-confidence in their commanders than the commanders self-report. (All SAL ratings are less than LSA ratings. First of all, it would be expected that an individual's self-assessment would be higher than an assessment by others. Also, SAL is a mean score of at least three, and usually six or seven subordinates. This tends to reduce the overall mean score.)

As SAL_{ec} declines, LSA_{ec} remains fairly constant. There is an inverse relationship between the two variables, with $r = -.22$. In fact, in all SAL variables, as SAL decreases, LSA decreases much less, if at all. Commanders who are perceived by subordinates with the least self-confidence actually envision themselves with as much self-confidence as quartile 1 commanders.

In organizations where subordinates perceive high leader self-confidence, there is much greater internal subordinate reinforcement. Subordinates who perceive the leader as self-confident also characterize the organization as significantly more democratic with greater leadership involvement as evidenced by higher St scores. They also note a much greater emphasis on initiating structure when perceiving the leader as more self-confident.

MM_L is greater with less LSA_{ec}.

Subordinate's Perception of the Leader's Self-Confidence (SAL_{sc}) Ranked in Quartiles by SAL_{sc}

Subordinate's Perception of
the Leader's Competence (SAL_c)

There is also a greater decline in St_{18} as $SALC$ declines when compared with St_{cone} . A strong relationship exists between the subordinate's assessment of the leader's competence and leadership style. For St_{18} , $r = .58$ and for St_{cone} , $r = .40$.

Subordinates require more external reinforcement when they perceive less leader competence. But note there is a significantly higher degree of democracy in quartile one, but little change across quartiles two, three and four. There is a correlation between SAL_0 and OC of .35.

TABLE 8

Subordinate's Perception of the Leader's Competence (SAL_C) Ranked in Quartiles by SAL_C

VARIABLE	Overall	Quartile 1	Quartile 2	Quartile 3	Quartile 4
LSA _{ec}	30.68	31.11	30.50	31.44	29.50
LSA _{ee}	38.15	39.00	37.88	38.22	37.38
LSA _c	27.00	27.89	26.88	27.44	25.62
MM _L	12.03	12.33	10.12	12.44	13.13
MM _B	9.30	9.93	9.09	9.12	9.00
St _{1a}	39.08	41.85	39.37	38.57	36.26
St _{cons}	35.66	37.25	36.18	34.44	34.53
SAL _{ec}	27.37	29.27	27.47	26.86	25.66
SAL _c	----->>>>>>>>>25.85	27.98	26.27	25.08	23.88
SAL _{ee}	35.92	37.49	36.80	34.96	34.32
SLC	7.20	6.84	7.51	6.82	7.69
GL	3.02	3.20	2.96	2.93	2.97

Subordinate's Perception of
the Leader's Self-Esteem (SAL_{SE})

In assessing SAL_{EE}, table 9, MM_L is significantly lower (.42 standard deviations) in quartile one than quartile four. There is also a marked difference in leadership style behaviors as SAL_{EE} declines. Values of r

are .56 and .48 with St_{18} and St_{cone} respectively. A higher perceived democratic organization is reported when leader self-esteem is perceived as high ($r = .45$). Subordinates who perceive low self-esteem also require more external reinforcement.

TABLE 9

VARIABLE	Overall	Quartile 1	Quartile 2	Quartile 3	Quartile 4
LSA _{ac}	30.68	31.89	30.25	29.44	31.12
LSA _{se}	38.15	38.78	38.75	36.44	38.75
LSA _c	27.00	28.11	26.50	26.33	27.00
MM _L	12.03	11.78	10.37	11.44	14.62
MM _B	9.30	8.92	10.31	9.79	8.17
St ₁₈	39.08	40.48	41.20	38.77	35.82
St _{cons}	35.66	38.16	35.96	34.96	33.38
SAL _{ac}	27.37	28.87	28.33	27.06	25.16
SAL _c	25.85	27.37	26.55	25.31	24.12
SAL _{se} ----->////////	35.92	38.15	36.47	35.28	33.76
SLC	7.20	7.10	6.96	6.85	7.92
OC	3.02	3.21	3.05	2.93	2.87

In general, squadrons with high LSA are higher in productivity. In those same squadrons, SAL is also higher and the correlation of MM_L and MM_E is stronger. As proposed, such "charismatic-type" leadership offers greater influence in job satisfaction and subordinate motivation.

Self-concept and the interpretation by others of that self-concept affects productivity and motivation. Those leaders with a positive self-image create a strong sense of their own competence and personal power.

As Laing, Rogers and Heider theorized, behavior is determined by interpersonal observations and perceptions of relationships. More accurate perceptions strengthen the relationship. In this study, it has been shown that when SAL and LSA more closely align, productivity increases and subordinate motivation to manage is higher.

Newcomb would say that the most important variable influencing attraction between two persons is the similarity of their attitudes. Numerous studies would support their precept. It was posited and proven that the establishment of relationships based on similar perceptions contributes to organizational effectiveness.

Perception of one's own level of self-worth is to a large degree also a function of agreement with reference groups. If a commander finds that his or her opinions and actions have been repeatedly verified, the leader develops

confidence, for example, in their competence. Many studies have demonstrated that a model's competence exerts a significant effect upon imitative behavior.

As posed by trait theorists, the leader's inner personality, in this case, self-concept, affects subordinates which strengthens the leadership interaction. It also appears that when subordinates similarly perceive superior's LPQ, there is cognitive balance. This balance precludes avoidance or the direction of energies away from the primary mission. When the leader's level of motivation is consistent with the subordinate's, tension is reduced. In a cognitively balanced situation, similarity of attitudes suggests closer interpersonal attraction.

Rogers says in his congruency theory that if one person behaves openly and with positive regard for the other person, the other person will reciprocate with similar behavior. One would expect that if a leader is more open, perceptions are more accurate, interpersonal attraction is more likely and modeling is facilitated.

In summarizing the effects of LPQ, it is evident that a subordinate's perception of a leader is as critical as the leader's self-perception. A great many factors in the leadership process are dependent upon the leader's attitudes toward self and how that attitude affects subordinate perception.

It is no surprise that productivity is greater when the leader has high positive self-regard and subordinates strongly sense that self-regard. Such affiliation links subordinate to superior and interpersonal attraction enhances the modeling process.

Subordinate's Locus of Control (SLC)

In the work place, it has been postulated that leaders must provide certain factors which serve as incentives for work. Theory Y, for example, takes the position that employees are motivated to achieve intrinsic as well as extrinsic rewards. In fact, it says intrinsic rewards are more powerful than extrinsic.

Path-goal theory also assumes that supervisors have the authority to influence rewards and punishments and that rewards are tied to specific behavior paths. Subordinates will tend to be high producers if they view high productivity as a path leading to the attainment of one or more personal goals. If a subordinate sees certain behaviors as an immediate source of satisfaction, that is, the leader provides increasing opportunities for personal satisfaction as subordinates achieve certain goals, the subordinate will be motivated.

Both Argyris and Herzberg agree that environmental factors provide incentive for work. But it is the intrinsic rewards (motivators, as Herzberg calls them) that implement an increase in ability, and thus greater productivity.

The hypothesis is that organizations will be more productive with subordinates who are more intrinsically motivated. MM_L and MM_E will also correlate more closely. Subordinate's locus of control, as shown in table 10, distinguishes the "self-starters" from those who need external reinforcement for the work they do.

TABLE 10

Subordinate's Locus of Control (SLC)
Ranked in Quartiles by SLC

VARIABLE	Overall	Quartile 1	Quartile 2	Quartile 3	Quartile 4
LSAsc	30.68	30.00	31.00	29.89	31.78
LSHge	38.15	37.50	38.37	37.78	38.89
LSAc	27.00	25.87	27.37	26.11	28.56
MM_L	12.03	10.75	13.50	11.67	12.22
MM_E	9.30	9.43	8.90	8.13	10.72
St _{1b}	39.08	37.67	39.10	38.15	41.24
St _{COMB}	35.66	35.34	36.86	35.88	34.62
SHLac	27.37	26.57	27.98	26.70	28.18
SHLc	25.85	24.90	26.41	25.10	26.94
SHLge	35.92	35.10	36.88	35.48	36.24
SLC	27.20	9.16	7.51	6.94	5.45
OC	3.02	2.96	3.15	3.01	2.95

In this particular variable, a lower score indicates greater propensity for intrinsic motivation. Therefore, quartile four is actually those organizations possessing the most "self-starters".

Among those most intrinsically motivated (quartile 4), there is a higher propensity to accept leadership roles, MM_E . Those subordinates who have lower SLC scores (intrinsic) perceived more St_{IE} and less St_{CONB} . The amount of St_{IE} vice St_{CONB} for intrinsic is much greater than for extrinsic. There is little difference in the perception of organizational characteristics.

There is a strong correlation in quartile one, i.e., extrinsic, for r of MM_L with MM_E , .47. The second through fourth quartiles are -.14, -.56, and -.43. The correlation is greater when subordinates are more extrinsically motivated, contrary to the original hypothesis.

Productivity is higher when subordinates are more intrinsically oriented.

Whether a person's beliefs about the extent to which they can control their own actions and environmental events merely correlates with or whether they cause behavior to occur in certain ways is not easy to establish. In fact, in real life experience, the underlying motivation of a person is often not known.

Leadership is ultimately an attempt to change attitude or behavior through interpersonal influence. How successful the leader is in affecting such change depends

upon the perception followers have of the leader action, related motivations, and consonance with the subordinate's motivations.

Since attitudes determine how and why people accept interpersonal influence, it seems logical that a leader's more positive attitude towards leadership roles would result in a more positive relationship with subordinates and greater productivity.

Attitudes towards the work environment define that motivating influence precipitated by the commander. And it is the attitude of the subordinates, in this case, not only the perception of the leader's personal qualities, but also the subordinate's determination of situational control, that help the subordinate judge the benefits of adopting similar attitudes.

Such theory is likened to Bandura's social learning. Behavior is partly a function of an individual's expectation of that behavior leading to reward. If an individual can attribute certain characteristics and certain observed behaviors to past rewards for the model, the individual's expectation that like behaviors will lead to eventual reward will cause the subordinate to imitate the motivation level of the commander.

Attribution theory offered a similar premise. An individual perceives based on information from one or more observations. The individual then modifies personal behavior based on observing the consequences of that behavior.

Individuals are not necessarily dependent on direct experience of the consequences of their behaviors for learning to take place. And in situations as suggested by Weiss, interpersonal attraction, credibility, status, and competence of the model influence the probability of modeling behavior.

However, it has been seen that such imitative behavior is more likely when the subordinates perceive less control over their environment.

Motivation to Manage

In previous chapters, there was a great deal of discussion about various theories of motivation. Far from an exhaustive study, the purpose was simply to provide a conceptual framework for drawing certain conclusions about leadership and subordinate motivation. These various theories basically were aligned along certain issues: the origin of the motivation; how does a behavior become motivated; what are the differences among people that cause different levels of motivation; and is all behavior motivated and purposive?

This study deviates from these more traditional theories of reinforcement, need and expectancy. The purpose here has been to define a more precise and limited domain concept to ascertain how subordinate motivation is affected by leader motivation.

The decision to use Miner's Motivation to Manage concept results in an explanation of certain leadership roles that can be defined and measured. These roles suggest certain functions of leadership: a strong desire to compete and exercise power; a favorable disposition toward authority and authority figures; a need to occupy a distinctive position; a strong sense of responsibility; and an assertiveness quality. To the extent that a person is motivated to engage in these behaviors is the extent of MM.

The trends in table 11 are less pronounced. There is only a slight decrease in the leader's self-perception, most notably in LSA₀, where $r = .47$.

The subordinate's perception of the commander, on the other hand, shows very slight increases as MM₁ decreases. There is also a slight increase in the ratio of St₁₈ to St₀₈, indicating that as there is less propensity toward the leadership role, there is a greater tendency to be more task-oriented.

With an accelerating decrease in MM₁, MM₂ actually increases with greater MM₂ than MM₁ in the first and fourth quadrants.

Leader's Motivation to Manage (MM_L)
Ranked in Quartiles by MM_L

The predominant trend in table 12 is that as there is less motivation to manage in subordinates, there is also a significantly higher need for external reinforcement ($r = -.37$). This verifies that those subordinates with less propensity toward their role as a leader/manager also require more attention from their supervisors. They are less self-motivated and require additional reinforcement for the job done.

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Subordinate's Motivation to Manage (MM_s)
Ranked in Quartiles by MM_s

Regression Analysis

Overall and quartile equations were developed using both forward and stepwise entry multiple regression analysis.

Forward entry added each variable to the equation one at a time. At each step, the variable with the smallest probability-of-F (test for the goodness of fit of the regression equation) was entered if it met the criteria stipulated.

Stepwise selection placed all variables in the equation and then removed each if the probability-of-F was smaller than .1. The equation was then recomputed until no more independent variables could be removed. Then, the independent variable that had the smallest probability-of-F and was not in the equation was entered if the variable passed certain tolerance tests. Next, all variables were again examined for removal. The process continued until no variables in the equation needed to be removed and no variables not in the equation were eligible for entry.

In both processes, variables had to pass both tolerance and minimum tolerance criteria to enter and remain in the equation. Tolerance is the proportion of a variable's variance not accounted for by other independent variables in the equation. The minimum tolerance associated with a given variable not in the equation is the smallest tolerance any variable already in the equation would have if the given variable were included.

A large number of statistical values are generated by this procedure. For this research, r and r^2 , which indicate the variance in Prod explained by successive independent variables, will suffice.

Four of the twelve independent variables account for 48 per cent of the variation in Prod using the forward entry method and 37 per cent using stepwise entry. Results are depicted in Table 13.

Table 13
Selected Statistics for Multivariate
Regression (Dependent Variable = Prod)

Variable	Forward		Stepwise	
	Multiple r	r ²	Multiple r	r ²
OC	.48	.16	.48	.16
LBA _{SE}	.58	.28	.58	.28
SAL _{SC}	.58	.34	.58	.34
St _{CONS}	.67	.48	.61	.37

OC, the degree to which the organization is democratic or autocratic, plays the most significant role in squadron productivity. As described earlier, OC is highly dependent upon both leadership style and the subordinate's appraisal of the leader. (St_{CONS}, $r = .74$; SAL_{SC}, $r = .61$; SAL_{SE}, $r = .45$; St_{IS}, $r = .35$; and SAL_C, $r = .35$). The leader's self-esteem, the subordinate's appraisal of the leader's self-confidence and the leader's consideration behavior best predict productivity.

Although other variables failed to meet the criteria, one cannot discount any of them. For example, MML, MM_S, and SLC weigh favorably in both the top and bottom Prod quartiles.

Table 14

Selected Statistics for Multivariate Regression
by Quartile (Dependent Variable = Prod)

Variable	Multiple r	r ²
Quartile 1		
BAL _{BC}	.82	.68
MM _L	.73	.56
MM _B	.78	.77
BAL _{BE}	1.00	.77
OC	1.00	1.00
Quartile 4		
BLC	.75	.57
MM _B	.78	.76
MM _L	.77	.77
LBA _{BC}	1.00	1.00

In the highest producing squadrons, the subordinate's appraisal of the leader's self-confidence and both leader and subordinate MM account for 97 per cent of the variation in production. In the lowest producing squadrons, the subordinate's locus of control, MM_B and MM_L account for 99 per cent of the variation.

The important premise here is that the leader appears to have direct control over a unit's productivity. The degree to which the leader creates a more democratic environment and emphasizes consideration behaviors account for thirty per cent of the variance in Prod. The leader's self-esteem weighs in heavily as well as the degree to which the leader displays self-confidence to ensure subordinate accuracy in perception.

CHAPTER VII

CONCLUSIONS

In the research that has resulted in today's leadership and motivation theories, few organizations have received more attention than the military. Here, leadership ability is often expressed in visual characteristics such as rank, or hierarchically by command, responsibility, organization, seniority, and other very tangible, very visible consequent conditions.

A fallacy in this interpretation is that "rank" does not necessarily correlate with "leadership". It may define the organizational aspect of formal position power. But it fails, for example, to include one of the most instrumental factors contributing to leadership effectiveness: the relationship between the leader and the follower.

Leadership, management, and motivation theorists have spent decades seeking formulas for organizational success. In recent years, more and more emphasis has been placed on the complex relationships which exist between the leader, the people being led, and the resulting effects.

"Popular" theorists of today (such as those *empassioned with excellence or guided by the sixty second in a minute*) have brought many seemingly complicated hypotheses to an unprecedented level of awareness by the

general populace. Each has their own domain of interest and influence and each puts forth a set of rules and procedures that portends a formula for success.

If one specific conclusion can be drawn from the vast amount of scientific (as well as the more speculative, anecdotal) research available, it is that no specific conclusions can be drawn. Leadership is an elusive, mercurial phenomenon that seems to defy exact rules of behavior or other parameters which might serve as an for leadership and organizational success.

However, there is some general agreement among "authorities" which at least offers a base line from which new leadership research can extend to suggest novel thought on the leadership process. That has been the purpose of this study. Drawing from a synthesis of the research most generally accepted today, this study offers a limited domain theory of leadership and motivation to serve as a springboard for an individual formulation of one's leadership philosophy.

A military organization was used to gather the data necessary to confirm or disconfirm the hypotheses. Such a place held constant many variables that might otherwise intervene in such a study. These were enumerated in Chapter III. They primarily included such variants as position, power, organizational structure, motivating influences, such as pay and promotion, and the dyadic

relationship between superior and subordinate. It was assumed that these could not be ignored, but held as relatively equal in all 35 cases.

The choice of the specific organization, squadrons in the U.S. Air Force Recruiting Service (USAFRS), was made for two distinct reasons. The first is due to the many parallels between the operation of this military organization and civilian organizations. The most appreciable alignment is that although USAFRS is certainly a traditional military institution, more civilian-oriented practices of performance goal allocation, competition, incentive and recognition are found here than in any other military organization. There is also very strong concern for qualitative as well as quantitative measurements in assessing cost effectiveness in the achievement of goals. This management practice is not unlike the concern business leaders would have in making profit-oriented decisions.

In most military organizations organizational output is a difficult if not impossible term to define. There are no profit and loss statements to analyze. Less specific criteria such as management effectiveness evaluations, operational readiness inspections, standardization reports, and other more subjective determinants must be coupled with the leader's analysis of mission output to assess organizational effectiveness. USAF Recruiting Service was used because of the availability of measureable objective.

The use of this particular military organization with a slight civilian orientation and definable output allows the generalization of many of the conclusions outside of the environs of a purely military situation. Although the scientific generalizability is limited because of sample selection procedures, certain ad hoc and intuitive judgements can be made.

Throughout this study, there have been several underlying questions that this research attempted to answer.

What factors affect the relationship between leader and subordinate motivation?

Do individuals respond differentially to the motivation of the leader?

What organizational characteristics affect subordinate motivation?

What is the connection between the leader's self-worth and subordinate's perception?

How does leadership style correlate with subordinate motivation and productivity?

What factors affect performance?

What variables best predict performance?

Is there a causal relationship or simply a correlation between the independent variables, motivation and productivity?

This study has shown that there is a relationship between certain personality traits in the leader (LSA) and the perception of those same traits by subordinates (SAL); the leadership style (St) and its resulting characterization of the organizational process (OC); the degree to which subordinates perceive they have the ability to influence

their environment as well as personal outcome (SLO); and the motivation toward certain generally accepted leadership and management roles (MM).

And underlying all of these relationships is the crucial question that any leader must address: what variables in the organizational leadership equation most affect end-results, i.e., outcome or productivity? This research has also provided some insight for answering that question.

The conclusions stated here are from the perspective of the commander, for it is ultimately the responsibility of the leader to influence the thoughts and behavior of others to accomplish a specific objective. Since this is a study of leadership, it is hoped that some of the results reported here might aid developing leaders modify their behavior, if necessary, to achieve optimal subordinate and organizational performance.

Organizational Characteristics and Leadership Style

The most creditable factor which affects both motivation and productivity is the type of organization in which subordinates must operate. Influencing heavily these organizational characteristics is the amount of consideration and initiation of structure behavior imposed

by the leader, i.e., how decisions are made, how tasks are structured, how goals are determined and how relationships are established.

There is a very definite downward trend in productivity as the organization becomes less democratic. Workers tend to disassociate themselves from the mission in less democratic organizations because personal growth and stimulation are encouraged less. Even considering that the two lowest squadrons were actually more democratic than autocratic, it was obvious that they performed more like autocratic squadrons when compared with higher rated organizations. And it affected both productivity and motivation.

In more democratic organizations, leaders are less inclined toward the six prescribed roles as a result of both a more balanced leadership style and more participative leadership philosophy. Since there is less MML in a more democratic organization, there is also less overt display of those role requirements and very likely less modeling by the subordinates of that behavior. However, subordinate motivation overall appears high.

A similar trend exists when comparing the relative amount of initiating structure to consideration behaviors. In 41 of 50 cases, commanders exhibited more St₁₈ than St₂₀. There was more emphasis on defining the leader's role and structuring the expectations of members than a

regard for the comfort and well-being of the group members. However, the two behaviors were more closely paralleled in more productive squadrons.

Subordinates in less productive squadrons noted that leaders displayed one leadership style or the other to a greater extent. The four squadrons that displayed greater consideration behaviors were also lower producing squadrons. It was also noted that from squadron to squadron, in the top producing organizations, the range between the differences was relatively equal, while there was a sporadic variance in the low producing squadrons.

It can be concluded, then, that a more democratic environment generates greater productivity. Also, a more balanced leadership style is necessary. However, a slightly greater amount of structure initiation results in greater productivity. There is a higher degree of correlation between MM_L and MM_G when LSA_{cont} is higher, suggesting that consideration behaviors are more readily imitated by subordinates than are more task oriented leadership efforts.

Leader's Personal Qualities

The leader's personal qualities also impact productivity. Leaders who have a positive self-concept spark increased output. Additionally, when subordinates

perceive a positive self-concept in the leader. they do. In fact, tend to imitate the leader's motivation to manage.

The leader's self-esteem, that is, the determinant of the individual's self-respect and self-worth, contributes the most to an environment that results in higher productivity. It is also the most strongly held asset as determined by the leader.

Closely linked is self-confidence, the reliance of the leader on passive or nonpassive leadership techniques to cope with leadership problems. Although there is greater variance in this variable, commanders of higher producing squadrons had greater self-confidence.

Finally, personal competence, how well a leader uses power in directing subordinates, follows closely. It was this variable that had the lowest scores as reported by the commanders.

Very similar results were reported by subordinates. Although they gave generally lower scores, high producing squadrons had commanders with higher subordinate-perceived personal qualities.

The direction above or below the mean of the perception rather than the strength of the perceived scores may provide some more important information. If a commander self-reports high LPO, but the subordinate perceives it as below average, then the influence in the morale and attitude of these subordinates is less than might be predicted. There is distortion in perception, a disconnect that must be dealt

with if the leader/follower relationship is to contribute to and not detract from organizational performance.

Fewer than one third of the squadrons experienced such distortion between each of the three leader qualities. However, majority of the significant distortions were in the bottom two Prod quartiles. Three of the bottom four reported the most distortion in each of the variables. (See graphs 9, 10, and 11.)

It is true, then, that the commander's inner personality has an impact on subordinate performance. But it is also true that the leader cannot rely solely on his or her own judgment. A leader must ensure that this level of self-worth is accurately communicated through interpersonal relationships. Accurate perception of high self-worth results in better subordinate performance and enhanced imitative behavior.

Subordinate Locus of Control

Subordinate locus of control (SLC) is the degree to which an individual has clear cut beliefs about the extent to which they personally can control their own actions as well as environmental events. That is, does what they do make a difference? It is a measurement of their perception of skill versus luck as well as to what level they require external reinforcement for the actions they do.

If the subordinate perceives reward or reinforcement as not completely contingent upon their own behavior (external control), i.e., under the control of others or the result of fate, there is less learning and less self-perpetuated motivation to perform. Unlike the original hypothesis, there is less likelihood of modeling in those with internal control, not more.

It was shown that in squadrons with lower productivity, subordinates required more external reinforcement. The assumption is that there is less satisfaction in individual performance when organizational performance is failing. When organizational performance is failing, less recognition is achieved.

A leader must be aware of each subordinate's locus of control. Although there is no significant correlation between SLC and productivity, SLC plays a major role in the general attitude of goal accomplishment. When subordinates perceive that their efforts are not singularly responsible for the outcome, there is a greater potential for the subordinate to assume a less aggressive attitude toward work. Subordinates with a more external motivation require more supervision and can actually detract from the leader's efforts.

Motivation to Manage

Finally, motivation to manage, or the predisposition toward specific leadership roles, evaluates the positive or negative regard with which the individual accomplishes certain tasks as a leader or manager.

Commanders scored considerably higher overall than subordinates. This might be expected as most commanders are more seasoned bureaucratic managers and have been somewhat "molded" to these role prescriptions. The subordinates are considerably younger and less experienced. Few have been managers or supervisors in large organizations. They still remain idealistic and have not yet formulated their management and leadership strategies.

The trend was generally (but not consistently) higher for MM_L and lower for MM_S in lower producing squadrons. Commanders apparently can deviate greater from expected management functions when productivity is high.

The overall MM trends are less than anticipated, with the correlation between MM_L and MM_S lower than predicted. It is an important side note, however, that lower MM_S resulted in a significantly higher external locus of control. Subordinates are less inclined to assume specific management roles when they perceive less control over the outcome.

Although neither MM_L or MM_B contributed to the overall prediction equation of productivity, they each contribute to the equation at the two extremes of the productivity quartiles.

Implications for Further Research

In any elaborate research effort, more questions frequently arise than are answered. Such is the case in this research, offering a fruitful area for additional study. Just a sampling of questions that have arisen for which no answers were provided follow. Further examination of these issues might help even better define the process of leadership and its impact on motivation and organizational effectiveness.

1. Is there an influential relationship between a leader's total personality and success? Other than the three described here, what are these personality factors?

2. How does distorted perception alter organizational effectiveness? Do the reported correlations differ over time? Specifically, as psychological and job maturity grow, do these perceptions change?

3. If a leader knew there was a disconnect between LSA and SEL , would he or she change? How might they best affect that change?

4. What is the level of self-worth of the subordinates? How does it affect the organization?

5. If a leader assumes command of a faltering organization, how does St relate to the "inherited environment"? Is greater immediate St, is dictated by lacking productivity? How should leadership styles change as productivity changes?

6. How could actual rewards (social exchange) and credits given by the leader to the subordinates be measured?

7. What is the actual level of interpersonal attraction, i.e., liking, between subordinate and leader? Does a greater liking facilitate modeling? Does it increase or decrease distortion in the perception of leader qualities?

8. Does the commander's locus of control affect leadership style? Organizational characteristics?

9. Is there a definite trend in motivation to manage as leaders mature in their current job? Over a career?

Summary

There can be no doubt that the leadership function is a driving influence in organizational effectiveness and productivity. But leaders cannot **directly** influence that success. Between the leader and the end result is a series of intervening variables that mediate the process.

If the leader fully understands the impact of these intervening variables and can influence them accordingly, then the leader's affect on the mediators will affect the intended end result.

This study has addressed only a few of those intervening variables. The hypotheses on pages five and six were generally confirmed for productivity. They were not confirmed for motivation modeling.

However, there can be no doubt that certain organizational environment, certain leadership styles, and certain leader characteristics synergize to produce the leadership equation. While leadership cannot be precisely defined, this study has begun to define some of the more salient intervening variables that can help leaders better assess their leadership strategies.

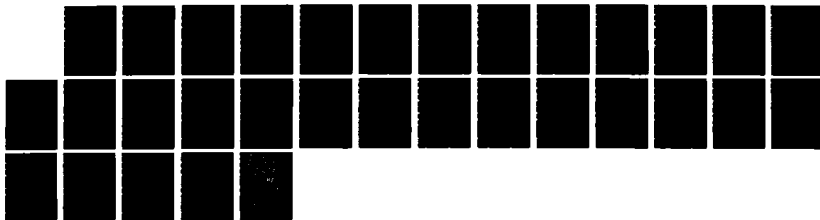
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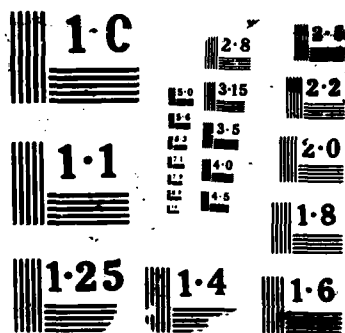
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APPENDICES

SUBORDINATE SUPERVISORS' DEMOGRAPHICS

ID	SEX		Total N	Age					Total Years on Active Duty				
	Male	Female		Under 25	26-30	31-35	36-40	Over 40	Under 5	6-10	11-15	16-20	>20
	***	***	****	*****					*****				
1	5	0	5	0	1	1	2	1	1	1	0	1	2
2	5	1	6	0	0	2	3	1	1	1	2	1	1
3	6	0	6	0	1	2	2	1	0	2	2	0	2
4	3	3	6	0	1	1	3	1	2	1	2	1	0
5	3	0	3	0	1	1	0	1	0	1	1	1	0
6	4	1	5	0	0	2	3	0	0	2	1	1	1
7	6	0	6	0	1	3	0	2	0	2	3	0	1
8	4	3	7	0	2	3	0	2	0	4	2	0	1
9	6	1	7	0	1	3	2	1	0	4	1	2	0
10	4	2	6	0	2	0	2	2	2	1	0	2	1
11	3	3	6	0	4	1	0	1	1	4	0	0	1
12	5	2	7	0	4	0	3	0	1	2	1	2	1
13	6	1	7	0	2	0	4	1	0	2	1	3	1
14	4	1	5	0	0	1	3	1	0	2	1	2	0
15	6	0	6	0	3	0	2	1	1	3	0	0	2
16	2	3	5	0	2	1	2	0	1	2	0	1	1
17	6	1	7	0	1	1	4	1	0	3	1	2	1
18	2	1	3	1	0	1	0	1	1	1	1	0	0
19	4	2	6	0	2	2	1	1	1	1	1	2	1
20	5	0	5	0	0	0	3	2	0	1	1	1	2
21	5	1	6	0	0	2	3	1	0	2	2	1	1
22	4	3	7	0	1	2	4	0	1	3	1	1	1
23	5	1	6	0	1	2	2	1	0	2	2	2	0
24	5	1	6	0	0	0	4	2	0	0	3	2	1
25	4	0	4	0	0	0	3	1	1	0	0	1	2
26	5	2	7	0	2	1	4	0	1	2	1	3	0
27	6	1	7	0	2	1	3	1	0	2	2	2	1
28	4	0	4	0	0	2	0	2	0	0	2	1	1
29	4	1	5	0	0	1	4	0	0	2	2	1	0
30	7	0	7	0	3	1	2	1	2	3	0	1	1
31	5	2	7	0	0	3	4	0	1	2	2	1	1
32	4	2	6	0	0	3	1	2	1	1	1	2	1
33	4	2	6	0	1	1	3	1	0	2	0	3	1
34	5	2	7	0	1	1	5	0	1	2	1	2	1
35	6	0	6	0	0	3	2	1	0	1	2	2	1
TOTAL	162	42	204	1	39	48	63	34	20	64	42	46	34

ORGANIZATIONAL CHARACTERISTICS AND LEADERSHIP STYLE

ID	OC	St (IS)	St (Cons)	ZOC	IS-Cons
1	3.06	42.20	34.20	0.14	-0.00
2	3.32	40.00	38.00	1.03	-2.00
3	3.73	42.33	41.00	2.45	-1.33
4	3.31	37.50	35.33	1.00	-2.17
5	2.59	39.00	29.33	-1.48	-9.67
6	3.07	40.60	36.20	0.17	-4.40
7	2.76	39.50	34.00	-0.90	-5.50
8	2.76	39.00	33.57	-0.90	-5.43
9	3.40	43.14	38.43	1.31	-4.71
10	3.25	40.00	36.50	0.79	-3.50
11	3.09	39.00	37.50	0.24	-1.50
12	3.02	38.14	37.29	0.00	-0.85
13	3.00	34.74	31.25	-0.07	-3.49
14	3.34	44.40	37.75	1.10	-6.65
15	3.11	39.50	37.50	0.31	-2.00
16	2.69	35.20	33.60	-0.45	-1.60
17	2.74	38.10	35.57	-0.97	-2.53
18	3.00	40.00	37.00	0.21	-3.00
19	2.99	35.03	35.33	-0.10	-0.50
20	3.39	38.00	41.00	1.20	3.00
21	3.02	42.17	34.67	0.00	-7.50
22	2.51	45.33	28.71	-1.76	-16.62
23	3.12	41.50	37.67	0.34	-5.83
24	2.87	31.83	36.50	-0.52	4.67
25	3.04	40.25	31.50	0.07	-8.75
26	3.18	38.85	39.00	0.55	0.15
27	1.66	34.71	32.43	-1.17	-2.20
28	2.57	37.50	33.00	-1.55	-4.50
29	3.30	33.00	36.40	0.97	2.60
30	3.07	37.57	35.15	0.17	-2.42
31	2.58	37.71	32.71	-1.52	-5.00
32	2.77	36.33	33.17	-0.86	-3.16
33	2.51	41.83	33.00	-1.76	-8.83
34	3.26	40.86	37.71	0.83	-3.15
35	3.21	42.67	41.33	0.66	-1.34

MEAN AND STANDARD DEVIATION BY QUANTILES

1st Mean	3.14	40.43	35.96
Std Dev	0.52	3.77	5.02
2nd Mean	3.05	38.60	36.13
Std Dev	0.46	5.45	4.40
3rd Mean	2.96	38.60	35.20
Std Dev	0.52	5.90	6.46
4th Mean	2.92	38.68	35.75
Std Dev	0.53	5.22	5.32

LEADER'S PERSONAL QUALITIES (Self-Reported and Subordinate Perceived)

ID	SAL (SC)	LSA (SC)	SAL (C)	LSA (C)	SAL (SE)	LSA (SE)
1	30.00	28.00	26.20	26.00	37.00	36.00
2	30.33	35.00	27.17	28.00	39.17	40.00
3	31.67	31.00	28.67	29.00	39.00	39.00
4	25.67	27.00	24.00	22.00	35.33	37.00
5	27.67	35.00	25.33	29.00	34.00	40.00
6	26.00	30.00	27.00	28.00	34.00	40.00
7	28.33	32.00	25.00	28.00	34.67	40.00
8	25.29	28.00	24.71	24.00	34.43	40.00
9	31.14	34.00	28.67	28.00	36.57	40.00
10	29.33	35.00	26.50	27.00	38.00	40.00
11	28.67	28.00	26.50	26.00	36.50	39.00
12	27.29	26.00	26.57	25.00	36.43	38.00
13	25.57	33.00	25.14	24.00	33.71	36.00
14	29.60	32.00	31.00	31.00	39.60	40.00
15	29.83	28.00	25.17	29.00	35.00	35.00
16	25.00	31.00	23.40	28.00	34.40	40.00
17	25.00	33.00	26.29	31.00	37.29	40.00
18	28.00	31.00	23.75	27.00	35.00	34.00
19	26.33	26.00	24.83	24.00	35.33	34.00
20	26.40	30.00	25.60	23.00	37.00	36.00
21	27.67	28.00	25.50	24.00	36.60	38.00
22	26.14	34.00	27.50	30.00	36.00	40.00
23	27.83	35.00	25.33	28.00	36.33	40.00
24	24.50	32.00	23.67	27.00	34.00	40.00
25	26.75	28.00	23.75	27.00	34.75	36.00
26	28.29	29.00	26.14	25.00	36.43	39.00
27	24.00	33.00	23.43	26.00	32.86	38.00
28	26.25	33.00	24.75	30.00	37.25	40.00
29	26.20	30.14	23.80	27.43	33.20	37.43
30	26.29	30.00	24.71	24.00	34.86	35.00
31	25.71	33.00	26.71	31.00	36.29	40.00
32	22.83	29.00	24.80	31.00	33.00	40.00
33	27.17	28.00	26.00	24.00	36.00	33.00
34	30.29	34.00	28.57	32.00	37.00	40.00
35	30.17	24.00	27.17	20.00	39.17	34.00

QUARTILE MEANS AND STANDARD DEVIATIONS

1st Mean	28.59	31.11	26.37	26.89	36.22	39.11
Stnd Dev	4.03	3.10	3.53	2.42	3.73	1.54
2nd Mean	27.57	30.78	26.07	27.78	36.20	38.00
Stnd Dev	3.78	2.91	3.09	2.49	3.56	2.40
3rd Mean	26.41	30.56	25.11	26.00	35.42	37.89
Stnd Dev	4.33	3.00	2.88	2.24	4.42	2.15
4th Mean	26.94	30.14	25.89	27.43	35.85	37.43
Stnd Dev	4.79	3.53	3.26	4.69	4.86	3.26

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